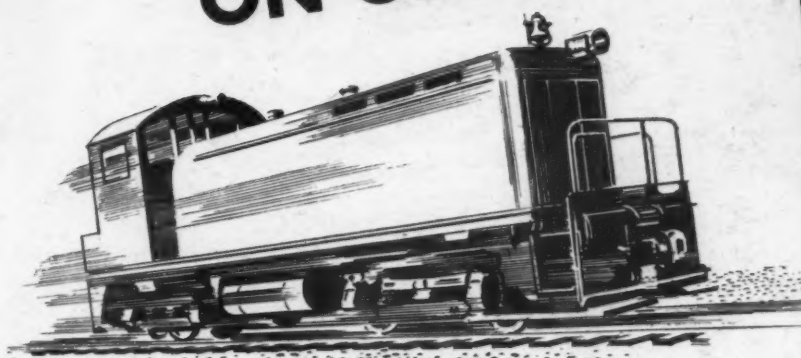


Railway Age

AUGUST 25, 1945

Founded in 1856

NOT MUCH ON GLAMOUR



But these GM Diesel switchers are doing a great job!

The Chicago, Rock Island & Pacific has put General Motors Diesel switcher locomotives in service at various times during the past seven years and seven months, the youngest in length of service being two years and eight months. Today the railroad has 37 of these busy 600-H.P. units in operation.

The record? Here it is — startling even for GM Diesels.

These 37 switchers worked a total of 1,725,575 hours up to January 1st this year. Each switcher averaged 646 hours a month, and was out of service for maintenance and repairs a mere 28 hours a month, average. Availability 95.8%.

GENERAL MOTORS
LOCOMOTIVES



ON TO FINAL VICTORY
BUY MORE WAR BONDS

ELECTRO-MOTIVE DIVISION

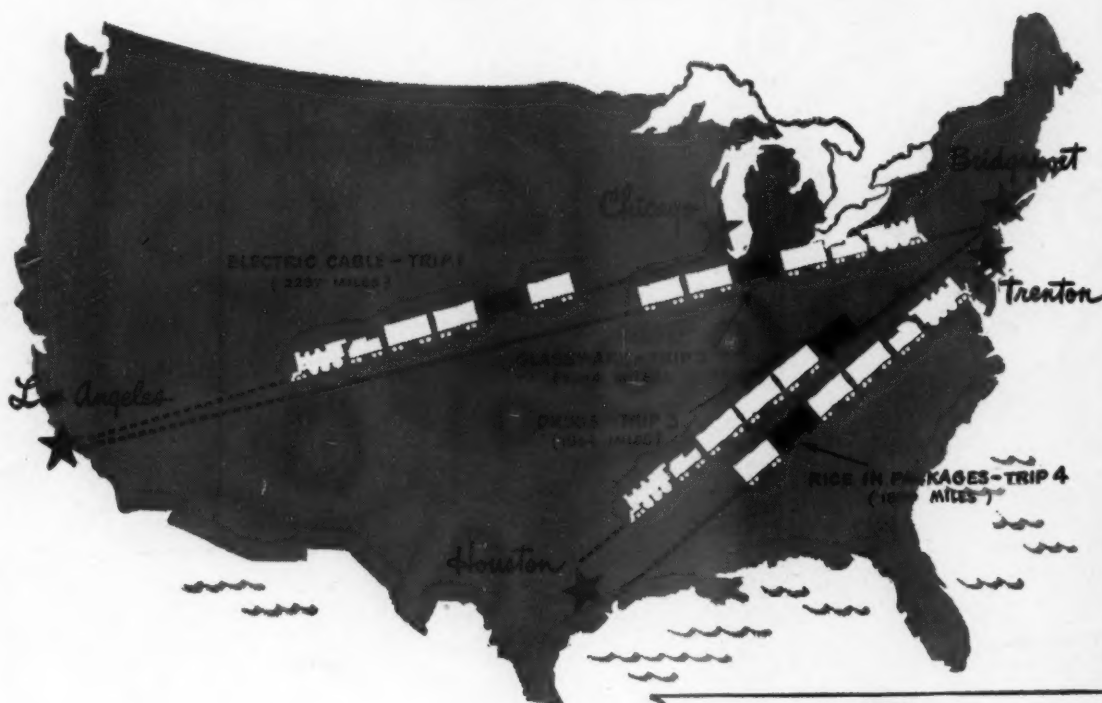
GENERAL MOTORS CORPORATION

LA GRANGE, ILL.

Never an Empty Mile!

EVANS UTILITY LOADER

IS DEFINITELY GENERAL PURPOSE EQUIPMENT



FOR THE GOOD OF THE RAILROADS

The 9000 mile path of one typical Evans Utility Loader equipped box car. Never an empty mile in three consecutive months of operation!

BUY MORE WAR BONDS

EVANS UTILITY LOADER

Evans Utility Loader equipped box cars have "full-time" war jobs with seldom an idle or empty mile. This is a factor of extreme importance in these days of heavy shipping schedules and increased burdens on America's rolling stock.

The **general purpose** feature of the Evans Utility Loader is only one of its many advantages. It increases box car efficiency by putting the full cubic and weight capacity to work on every trip. The car above carried 50% more than average load on each movement.

The Utility Loader has other advantages. It eliminates dunnage that is hard to get—reduces car cleaning time and so permits needed freight cars to be under load instead of on the rip track. It is designed to eliminate **vertical vibration** and **longitudinal**

shock; principal causes of damage to goods in ordinary box cars. The profit possibilities of the Utility Loader will interest you.

★ ★ ★

Vision to Anticipate the Needs of Tomorrow
Creates New Industries Today

E. Evans

PRESIDENT



**EVANS PRODUCTS
COMPANY**
DETROIT

Evans War Products: Machine Gun Mounts • Tank and Automotive Heating and Ventilating Equipment • Evansair Water Heaters • Aircraft Engine Mounts • Airplane Landing Gear Beams • Battery Separators • Prefabricated Houses • Molded Plywood Products • Skyloader • Utility Loader • Auto-Loader • Auto-Railer • Auto-Stop • Stampings • Evansair Domestic Heating Equipment

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RAILWAY AGE

Structural Co-operation

You get much more than a certain tonnage, accurately rolled to specifications, when you choose Inland Structural Steel. You get, also, the last ounce of practical co-operation, of common-sense usefulness—expressed in zeal to make your job definitely profitable to you and entirely satisfactory to your customers.

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BARS FLOOR PLATE PILING PLATES RAILS REINFORCING BARS SHEETS STRIP STRUCTURALS TIN PLATE TRACK ACCESSORIES



MT. VERNON CARS

Products of the
H. K. PORTER COMPANY, Inc.
MT. VERNON CARS: Boxcars, Gondolas, Hopper Cars, Refrigerator Cars, Tank Cars, Special Purpose Cars, Industrial and Mine Cars.
PORTER LOCOMOTIVES: Steam, Fireless Steam, Diesel-Electric, for General Switching and Yard Work.
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55 Years of Achievement

in Building Cars for Railroads and Private Owners



Since 1890—when Mt. Vernon built its first freight car—the years have been marked by constant progress in design and construction of equipment for railroad and private car owners. New, double-bunker, steel-sheathed refrigerator cars now rolling off the production lines are an outstanding example of the Mt. Vernon tradition of quality workmanship.

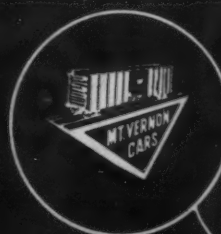
CAR MFG. CO.

ILLINOIS

COMPANY, Inc.

PENNSYLVANIA

McKeesport, Pa. • Newark, N.J. • New Brunswick, N.J.





OUR COUNTRY

MIGHTY IN WAR

TRIUMPHANT IN PEACE

W. H. MINER, INC.
CHICAGO

"SAWBUCK HILL"

When Private Edward R. Clie, bound overseas on a Rock Island troop train, wanted to count his cash money, he made a bad guess by picking Canute, Oklahoma, as the place to count it.

Canute is a small station, practically non-stop, in western Oklahoma, on the high plains close to the Oklahoma-Texas Panhandle country.

Private Clie's roll consisted of a \$1.00 bill and a \$10.00 bill. He sat by an open car window. A brisk wind blew through the car—and took the sawbuck greenback with it! He raced down the train, caught Conductor Russell McClain and told him the story.

Ten dollars is ten dollars, but Conductor McClain's train was going too fast to stop within searching distance of Canute, Oklahoma. Hence, he cannily took his hand off the bell cord, but he also took the soldier's A.P.O. address. And Private Clie moved on to his port of embarkation. At the end of his division, Conductor McClain was restless. Ten dollars of any man's money is important. But the ten bucks of that soldier! There was no rule about it in the book. . . .

On his return trip the following day, Conductor McClain was on the look out. The ten-dollar bill had been lost going by what Private Clie described as a "hill." That meant a "cut" to the railroader.

So, when the train neared a cut at Canute, he called for the air, and got down in the ditch, himself. He spotted the truant greenback, wet and limp from an all-night rain.

That bill stayed in the McClain wallet until he reached his El Reno home. Then he took measures to see that it reached Private Clie, somewhere overseas.

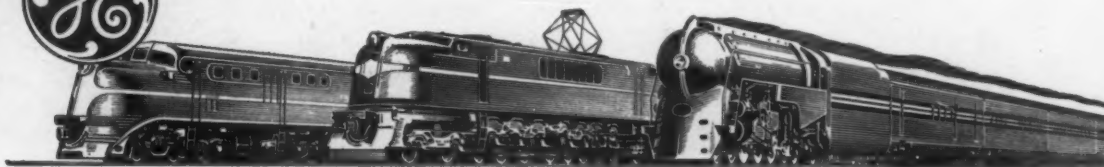
Like all good railroaders, Conductor Russell McClain knows his rulebook. But he knows, too, that he is expected to use good judgment. He got no "Brownies" for stopping that train.

—The Trackwalker*

★ ★ ★



Last May, the New York Susquehanna & Western Railroad became the first all-diesel-electric Class I road—after replacing 32 steamers with 16 Alco-G.E. 1000-hp units. This conversion is saving more than \$400,000 a year—a 29 per-cent return on the investment.



AMERICAN LOCOMOTIVE • GENERAL ELECTRIC

Copr., 1946, American Locomotive Company and General Electric Company

*Reg. U.S. Pat. Off.

118-147-9509

For the safe, economical reduction of

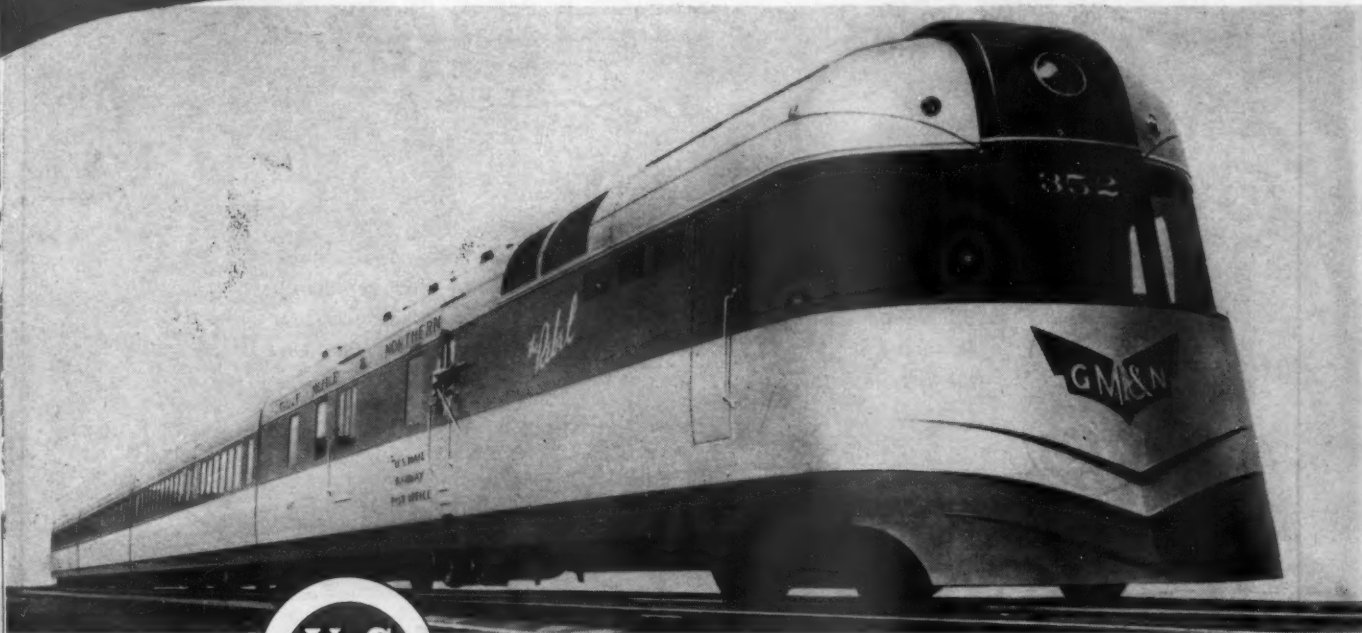


BUILT LIGHT WITH
U-S-S STAINLESS STEEL

Atlantic Coast Line "Champion," typical of the many completely Budd-built trains now in service. In building this equipment, cold rolled coils, of U-S-S 18-8 Stainless Steel are passed through rolling dies to emerge as angles, channels, Z-sections, etc., which are then joined by the Budd Shotweld process into a light structure of tremendous strength.

BUILT LIGHT WITH
U-S-S COR-TEN

Built by the American Car and Foundry Company for the Gulf, Mobile and Northern, the famous "Rebels" are 46% lighter than conventional construction because U-S-S COR-TEN was used to build them. The enthusiasm with which they were first received has been sustained throughout the whole period of their operation since 1935.



UNITED

deadweight in passenger equipment

U·S·S Stainless Steel and U·S·S COR-TEN

AS YOU review in your mind the famous streamliners that in ten short years have revitalized the railroads' passenger-carrying business, it is well to remember that almost 80% of them have been built with U·S·S Stainless Steel and U·S·S COR-TEN. To date more than 2,800 rail passenger units have been built lighter with these steels. Some of U·S·S Stainless only, some entirely of U·S·S COR-TEN and others using both steels.

In all these constructions, worthwhile weight savings have been accomplished. Both steels have proved highly satisfactory in service. It is on their record of demonstrated accomplishment that we recommend them for your earnest consideration.

EVERY SUNDAY
EVENING, United
States Steel pre-
sents *The Theatre
Guild on the Air*.
American Broad-
casting Company
coast-to-coast net-
work. Consult your
newspaper for time
and station.

AMERICAN STEEL & WIRE COMPANY, *Cleveland, Chicago and New York*
CARNEGIE-ILLINOIS STEEL CORPORATION, *Pittsburgh and Chicago*

COLUMBIA STEEL COMPANY, *San Francisco*

NATIONAL TUBE COMPANY, *Pittsburgh*

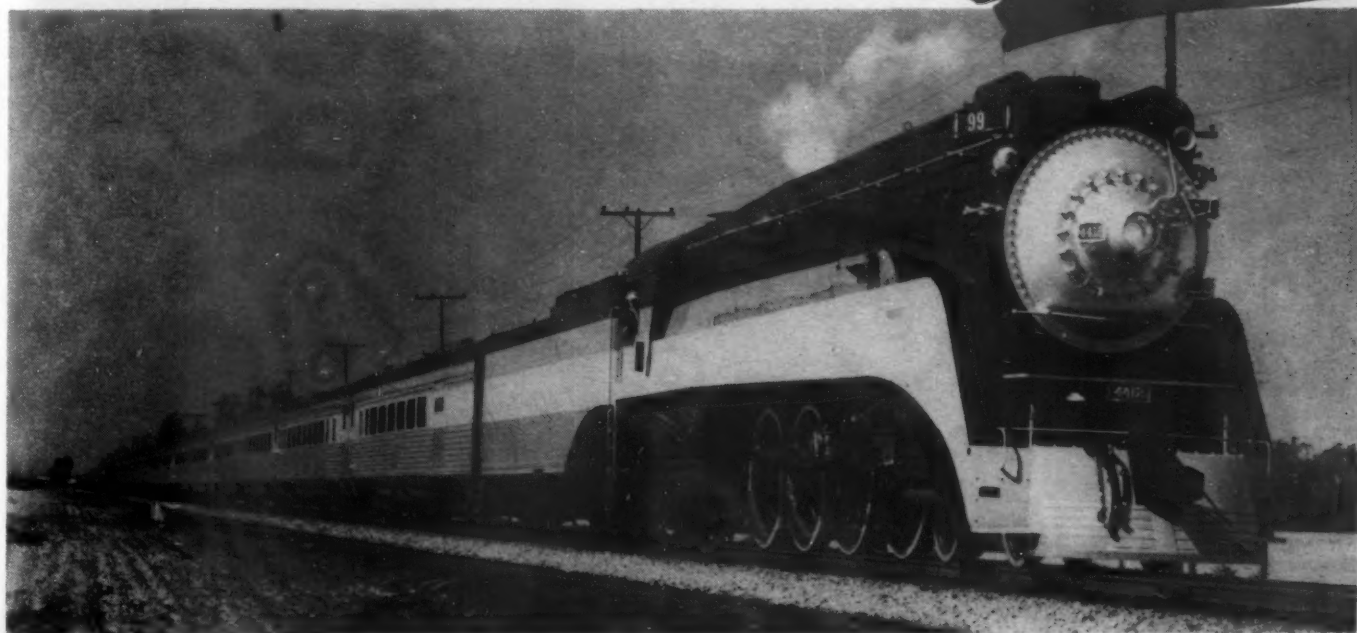
TENNESSEE COAL, IRON & RAILROAD COMPANY, *Birmingham*

United States Steel Supply Company, *Chicago, Warehouse Distributors*

United States Steel Export Company, *New York*

In these ultra-modern, twin "Daylight" speedsters put into service by the Southern Pacific in 1940, a high degree of weight reduction is obtained by using U·S·S Stainless Steel sheathing and trim, with COR-TEN truss-type framing. In 94 cars, like this built by Pullman-Standard for Southern Pacific, and 64 of similar construction for service on the Santa Fe, the truss-construction of U·S·S COR-TEN has taken 220% of rated load under test.

BUILT LIGHT WITH
U·S·S STAINLESS STEEL
AND
U·S·S COR-TEN



STATES

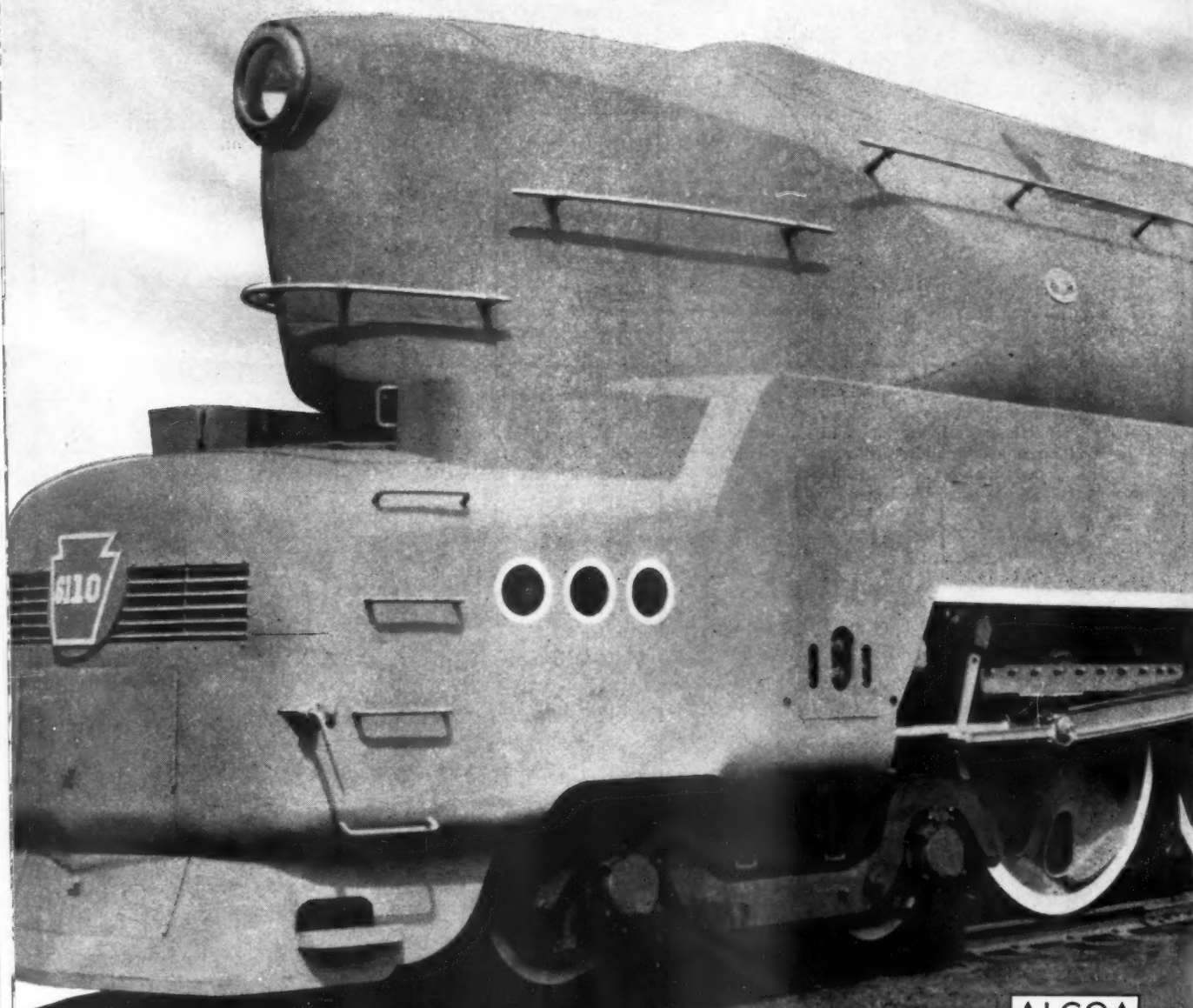
STEEL

The Pennsylvania Railroad's

Performance and test plant records stamp the Pennsylvania's new T-1 locomotive as one of the outstanding designs in railroad motive power. And Alcoa Aluminum was used extensively in its construction.

The lightweight metal was used in the streamlining, jacket, hip casing, sand boxes,

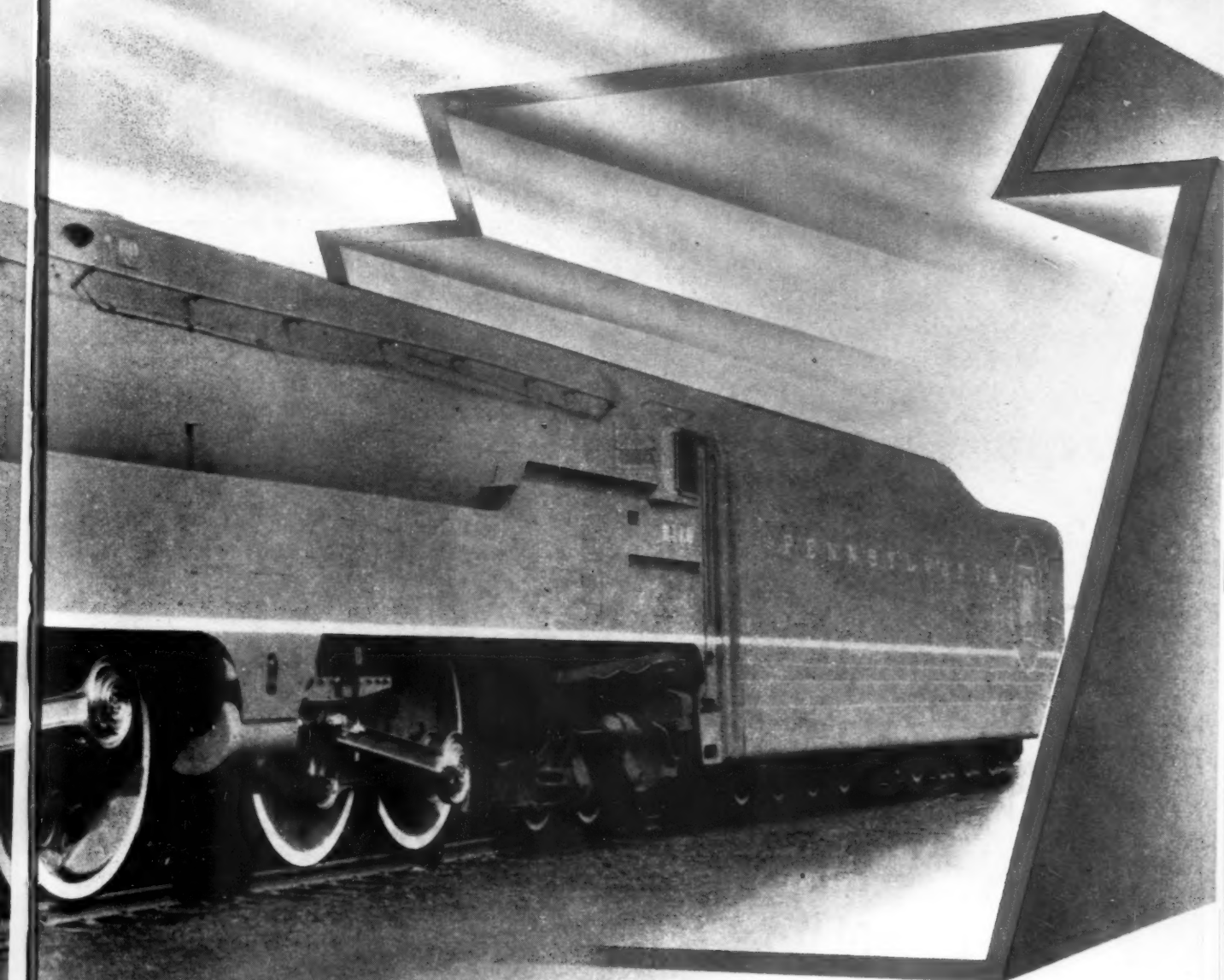
cab, deck, steps, skirting and running boards. Eighty-five hundred pounds of aluminum were used, resulting in a saving of 17,000 pounds in weight. For facts about Alcoa Aluminum in railroad service, write to ... ALUMINUM COMPANY OF AMERICA, 2178 Gulf Building, Pittsburgh 19, Pennsylvania.



ALCOA FIRST IN ALUMINUM



**New T-1 Locomotives make
good use of
ALCOA ALUMINUM**



Facts about the T-1 Locomotive...

Builder—Baldwin Locomotive Works
Wheel Arrangement—4-4-4-4
Wheel Base, Engine & Tender—107'

Water Capacity—19,500 gallons
Coal Capacity—41 tons
Steam Pressure—300 lbs. p. s. i.



Treat

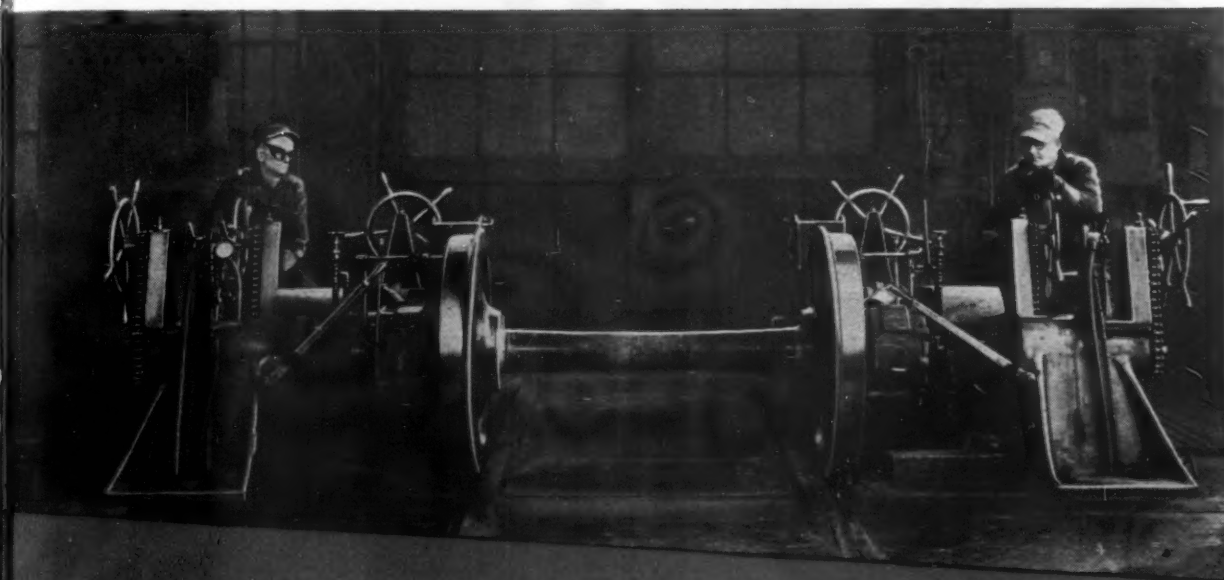
- ★ LONGER WHEEL LIFE
- ★ GREATER PASSENGER COMFORT
- ★ LADING PROTECTION
- ★ LESS VIBRATION
- ★ POLICES MOUNTING PRACTICE



"A high spot of 1/32 in. may help to cause sliding and it has been shown by test that such a high spot is usually found about 60 deg. from a slid-flat, which is about the angle between the contact with the rail and the contact of the brake shoe. If these high spots and other eccentricities are eliminated from new wheels before they are put into service, the tendency to slide is reduced, and the riding of the car is greatly improved with attending benefit to track, equipment and lading."

Wheel and Axle Manual
ASSOCIATION OF AMERICAN RAILROADS

YOUR WHEELS to PERFECT TREADS



ECCENTRICITY in wheel pairs is common, even after careful boring and machining of individual wheels and axle. Grinding of mounted wheels is the same method of obtaining smooth treads of identical circumference, truly concentric with journals.

The **Q.C.F. HIGH SPEED WHEEL TREAD GRINDER** detects and corrects, simultaneously. It "polices" manufacturing, boring, mating and mounting practices — assures smooth treads and concentricity — less brake shoe sticking — less vibration and smoother riding — less damage to loading, trucks and rails — less noise. All chilled car

wheels installed in cars built in **Q.C.F.** shops are ground after mounting.

In maintenance work, the **Q.C.F. Grinder** removes slid flats and other service defects from steel or chilled car wheels, prolonging wheel life.

One man can easily grind 11 pairs of new chilled car wheels per hour, and the operating cost is infinitesimal. Railroads find that grinding offers the only means of economically servicing heat treated steel wheels.

Savings from salvaged wheels and remounting will pay for grinder in two to three years.

WHATEVER **Q.C.F.** BUILDS—IT IS KNOWN TO BUILD WELL!

a.c.f. AMERICAN CAR AND FOUNDRY COMPANY

NEW YORK • CHICAGO • ST. LOUIS • CLEVELAND • WASHINGTON • PHILADELPHIA • PITTSBURGH • ST. PAUL • SAN FRANCISCO



NO COMPROMISE

This is the tenet by which Budd builds railway cars.

And in holding to it, materials, design, methods are

correlated to produce for American railroads the

strongest passenger car offered. There is never a

compromise with strength.

ON STRENGTH!

MATERIAL

Budd uses stainless steel because it is the strongest metal suitable for structural purposes. Low alloy steels such as Cor-Ten are only half as strong—carbon steel is but one-third as strong. The remarkable strength of stainless steel makes possible the construction of lighter cars, with, of course, no lessening in safety factors.

DESIGN

Budd design takes into consideration not only the unique qualities of the metal to be used, but also those points of stress in the car structure where extra strength is needed. Stressed members, therefore, are thoroughly reinforced. And the car underframe itself withstands compression to 2,180,000 pounds—far in excess of A.A.R. minimum requirements.

METHOD

Budd developed ways to work stainless steel—to bend and form it—so that its great strength could be applied to car building. Budd method took advantage of the SHOTWELD* system of welding, its own development, and produced an integral car structure with extraordinary strength at every point.

RESULT

Budd passenger cars have proved themselves to be extra safe because they are extra strong. Their lighter structural weight (without loss of strength) has benefited operation because of faster running time, and because more cars could be hauled with the same power. Budd car-building is a big step toward more profitable passenger traffic.

*Reg. U. S. Pat. Off.

EDWARD G. BUDD MANUFACTURING COMPANY

The logo features the word "Budd" in a stylized, bold, italicized sans-serif font. The letters are slanted to the right, and the "B" and "d" are particularly prominent.

PHILADELPHIA • DETROIT • CHICAGO • NEW YORK • ST. LOUIS • SAN FRANCISCO • WASHINGTON

Now! Comco FM Radio for Railroads



Up to 20 Miles . . .

. . . "Solid" Communications

That's Comco's amazing communications record proved in months of exhaustive tests. This new Comco equipment makes possible instant two-way communications train-to-tower, train-to-train, and engine-to-caboose . . . while the train rolls along!

Up-to-the-minute reports transmitted . . . last minute instructions received . . . without time-wasting stops. Easy communications between yardmaster and train crews. Less rolling stock needed. Hours saved in running time. *Safer*, more dependable service for traveler and shipper. All are now a *reality*!

Comco engineers and craftsmen, in the peace-days ahead, will produce the finest in radio and electronic equipment for railroad use . . . *customized* for dependability and lasting satisfaction.

WRITE! Just a note on your company letterhead outlining your exact requirements. We'll give you the benefit of our specialized experience.

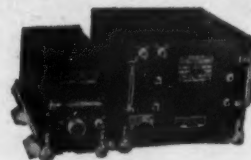
MANUFACTURERS OF RADIO



& ELECTRONIC EQUIPMENT

COMMUNICATIONS COMPANY, Inc.

CORAL GABLES 34, FLORIDA



Customized

FOR

DEPENDABLE PERFORMANCE

FM Transmitter and Receiver

A crystal controlled VHF transmitter and receiver for operation on 152-162 Mc. Units available in 15, 25 or 50 watts for operation on 6, 12, 32, 110 volts D.C. or 117 volts A.C. current. An 18-inch antenna provides adequate clearance.

Tropicalized components and extra rugged *Customized* construction mean long, trouble-free operation.

Ease of installation and quick replacement of defective units by non-technical personnel are features.



THE LARGER LOGS ARE LUGGED BY TRUCK

The very fact that the logging industry necessarily confines the more miraculous of its operations to the deep forest, quite often robs this rugged business of much deserved recognition. An example is the vast strides loggers have made in adapting motor transportation to their especial requirements ★ These are far from ordinary trucks and trailers that worm their way over treacherous terrain in a daily grind that demands perfect performance, or else. That Bendix-Westinghouse Air Brakes and Pneumatic Controls have played such a vital role in protecting the safety, dependability and economy of these units is quite a distinction . . . and more especially when the preponderance of their acceptance, by the in-

dustry's leaders, is considered ★ We're proud of the perennial job Bendix-Westinghouse Equipment is rendering in this grueling service which is recommendation enough for anyone who should have the slightest question as to the brake to buy which does everything a brake should do . . . plus! ★ This "World Standard of Safety" actually costs less than ordinary control. See your local authorized Bendix-Westinghouse Distributor. He has a message that will be both interesting and profitable for you.

BENDIX-WESTINGHOUSE AUTOMOTIVE
AIR BRAKE COMPANY . . . ELYRIA, OHIO

Bendix-Westinghouse

AIR BRAKES

AND PNEUMATIC CONTROL DEVICES



IT IS SIGNIFICANT THAT AMERICA'S FINEST MOTOR TRUCK FLEETS ARE EQUIPPED WITH BENDIX-WESTINGHOUSE AIR BRAKES

The faster, simpler way to handle **DIVERSIONS**



INDEX VISIBLE helps the **NEW HAVEN** move heavy traffic with high efficiency

Freight car diversions invite no needless error and delay on the New Haven. No untidy sheets or files of separate cards waste the time of busy clerks while shipments wait for humping.

First on one division, now throughout its lines, this carrier is benefiting from the speedy, accurate routine made possible by our *Index Visible* Car Diversion Record.

Typed by the diversion clerk as orders are received, the IVI cards are passed to the train clerk, who time-stamps them and with one motion inserts them in his IVI panels according to the last car number digit. Card colors indicate perishable or non-perishable shipments.

Upon receipt of a train, the train clerk *visually* checks bills against this clear and unmistakable record.

Car numbers, initials and dates are seen at a glance. Minutes are saved where and when they are most valuable, the humping conductor gets his list *correct and faster*.

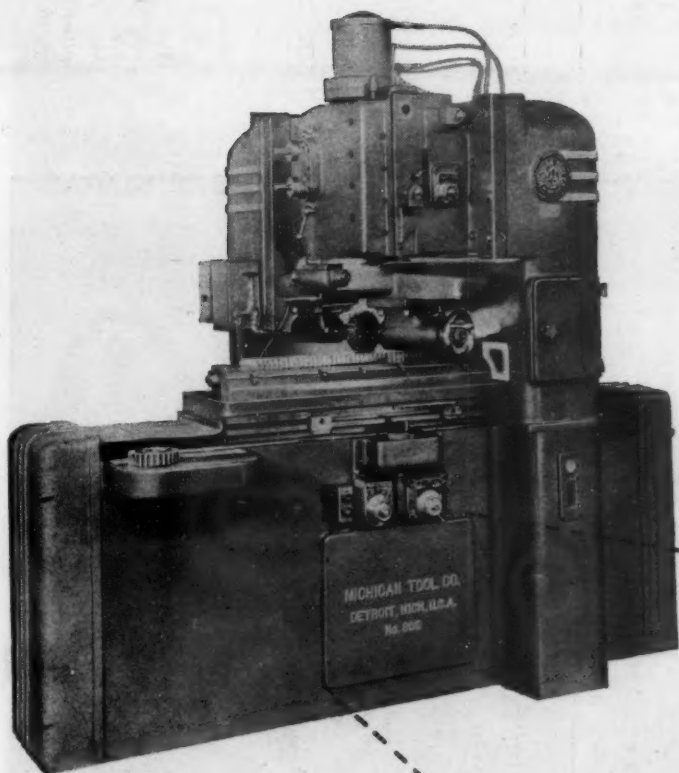
➡ **FULL DETAILS** of the handling of diversion orders with *Index Visible* Record on the New Haven are in Railroad Management Controller No. 702. This valuable study also covers modern time-saving methods of keeping various other operating departments records, and will gladly be sent on special loan service from our System Research Data File. Write to our Branch Office.

*Improved Record Controls
Improve Railroad Service*

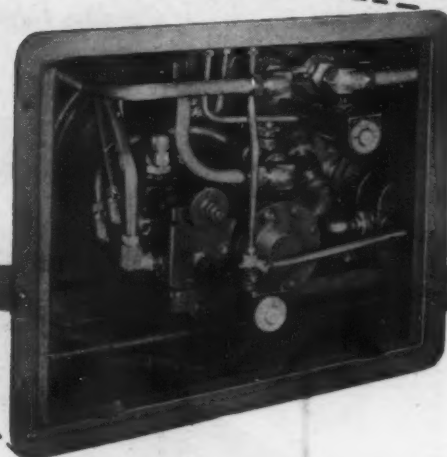
SYSTEMS DIVISION
REMINGTON RAND
315 Fourth Avenue, New York 10, N.Y.

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engineered fluid power control



Michigan Rack-type Gear Finisher—Model 900—
manufactured by Michigan Tool Company, Detroit,
Michigan.



The hydraulic controls which make this machine—and millions of others perform with such reliability—call for tubing systems based on the principles of Fluid Power Engineering.

When properly engineered and built, these systems have certain "must" features—

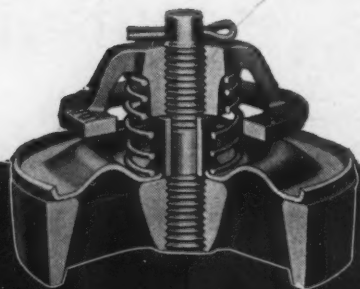
1. They streamline the flow of fluids. This permits adequate response to control with minimum system capacity.

2. They make minimum demands on the power source—an economy feature.
3. They fit into the available space, even when space is limited and cramped.
4. They are planned for easy accessibility to all parts—for service and maintenance.
5. They have the smallest number of joints and connections—all leakproof—even under high pressure, vibration or abuse.

FLUID POWER engineered systems—with Parker valves, fittings and fabricated tubing meet these requirements. They are backed by more than twenty years of "know-how".

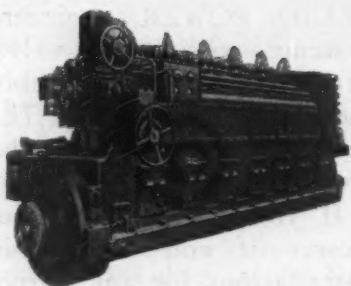
If you plan to use Fluid Power—if you need tubing installations for any purpose—ask a Parker engineer for recommendations. The Parker Appliance Co., 17325 Euclid Ave., Cleveland 12, Ohio. Booklet on request.

THE
PARKER
APPLIANCE COMPANY
CLEVELAND • LOS ANGELES
FLUID POWER ENGINEERING



DURABLA

STRENGTH WITHOUT WEIGHT



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Durabla Valve Units* for Pumps, Compressors and Diesel Engines use a valve member with a patented arch construction that provides a combination of strength and endurance and light weight which can be obtained in no other way.

Capable of continuous operation in regular service under pressures as high as 3000 pounds per square inch and temperatures as high as 800 degrees Fahrenheit, DURABLA valves can be utilized in heavy duty service with the same advantages of light weight and compact dimensions that characterize their use under less severe conditions.

DURABLA arch construction also provides a non-warping valve that insures reliability of operation and long term freedom from maintenance problems.

Specify DURABLA Valves for Standard Equipment or as Replacement Units for any type of Pump, Compressor, or Diesel Engine.

Address **DURABLA Engineering Department**
for Information and Bulletin No. 9A8

* Patent Numbers 2090486, 2117504

DURABLA MANUFACTURING COMPANY
114 LIBERTY ST. NEW YORK

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MAKING BRIDGES LAST LONGER

Timber structures pressure-cresoted by Koppers Wood Preserving Division are protected against severe weather exposure, decay and termite attack. Pressure-treated wood ranks with other permanent building materials in long service life, and is usually lower in first cost and annual maintenance charges.

KOPPERS

and the
Railroads



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Concrete and masonry exposed to water should be protected with coal tar pitch waterproofing or dampproofing to prevent spalling or deterioration. Send for the Koppers folder on Membrane Waterproofing which explains how this protection makes foundations, bridge floors, tunnels, retaining walls, and other structures last longer.

Koppers Coal Tar Pitch Roofing has a property known as "cold flow" which enables it to seal itself when small surface breaks occur (as they may do in any roof, because of vibration, settlement of the building, etc). This makes roofs last longer.

MAKING ROOFS LAST LONGER

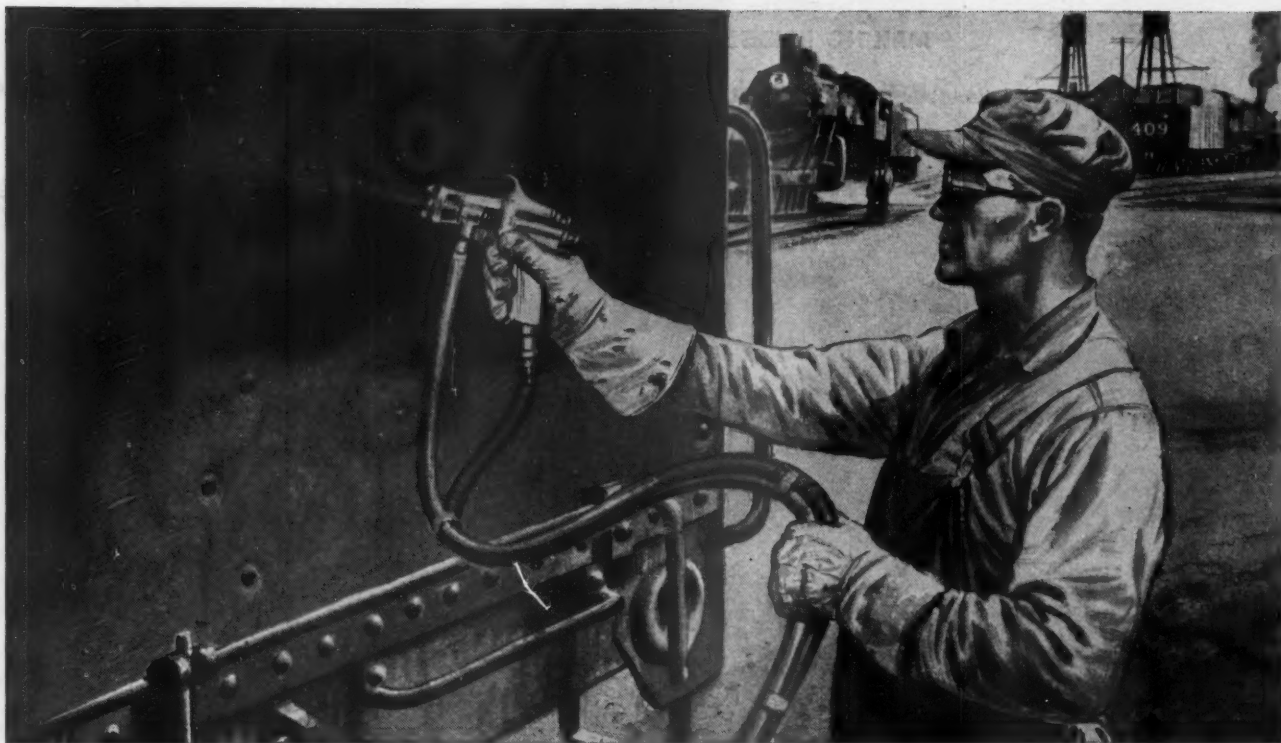


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you need this protection!*

ADDED LOADS, increased mileage and fewer replacements make it vital to protect your rolling stock these days.

That's why it will pay you so well to take advantage of the protection against wear, abrasion and corrosion offered by Flintkote Car Cements.

They come in spray or trowel consistencies... are easily applied... and meet the most rigorous railroad specifications.

Here are some of the places they can safe-

guard your precious equipment: On box cars—outside roof... ends (side and end posts)... over coupler units at each end of floor line... inside, under wood lining (ends, sides and roof). Gondola Cars—over coupler units at each end of floor line... on underframes. Hopper Cars—underside of slope sheet... underframes... couplers.

Please write our Railway Department for full information. And this Department will gladly work with you on any special problems.

FLINTKOTE RAILROAD PRODUCTS—Adhesives • Asphalt Protective Coatings • Building Materials • Car Cements • Cold Mastic Flooring • Insulation Coating • Stock Car Flooring • Waterproofing and Dampproofing Materials

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Industrial Products Division

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Synthetic Tubing

THE MODERN ELECTRICAL CONDUIT
FOR INDUSTRY

TRANSPARENT...

ABRASION PROOF...

ACID PROOF...

Amphenol "9746"
Flexible Synthetic Tubing

Size No.	Nominal I.D.	Wall Thickness	Well Number
20	.034"	.016"	9746-034
19	.038"	.016"	9746-038
18	.042"	.016"	9746-042
17	.047"	.016"	9746-047
16	.053"	.016"	9746-053
15	.059"	.016"	9746-059
14	.066"	.016"	9746-066
13	.076"	.016"	9746-076
12	.085"	.016"	9746-085
11	.095"	.016"	9746-095
10	.106"	.016"	9746-106
9	.118"	.016"	9746-118
8	.133"	.016"	9746-133
7	.148"	.016"	9746-148
6	.166"	.016"	9746-166
*3/16	.186"	.040"	9746-3
*1/4	.250"	.040"	9746-4
*3/8	.375"	.060"	9746-6
*1/2	.500"	.083"	9746-8
*3/4	.625"	.083"	9746-10
*1	.750"	.083"	9746-12
*1 1/4	.875"	.083"	9746-14
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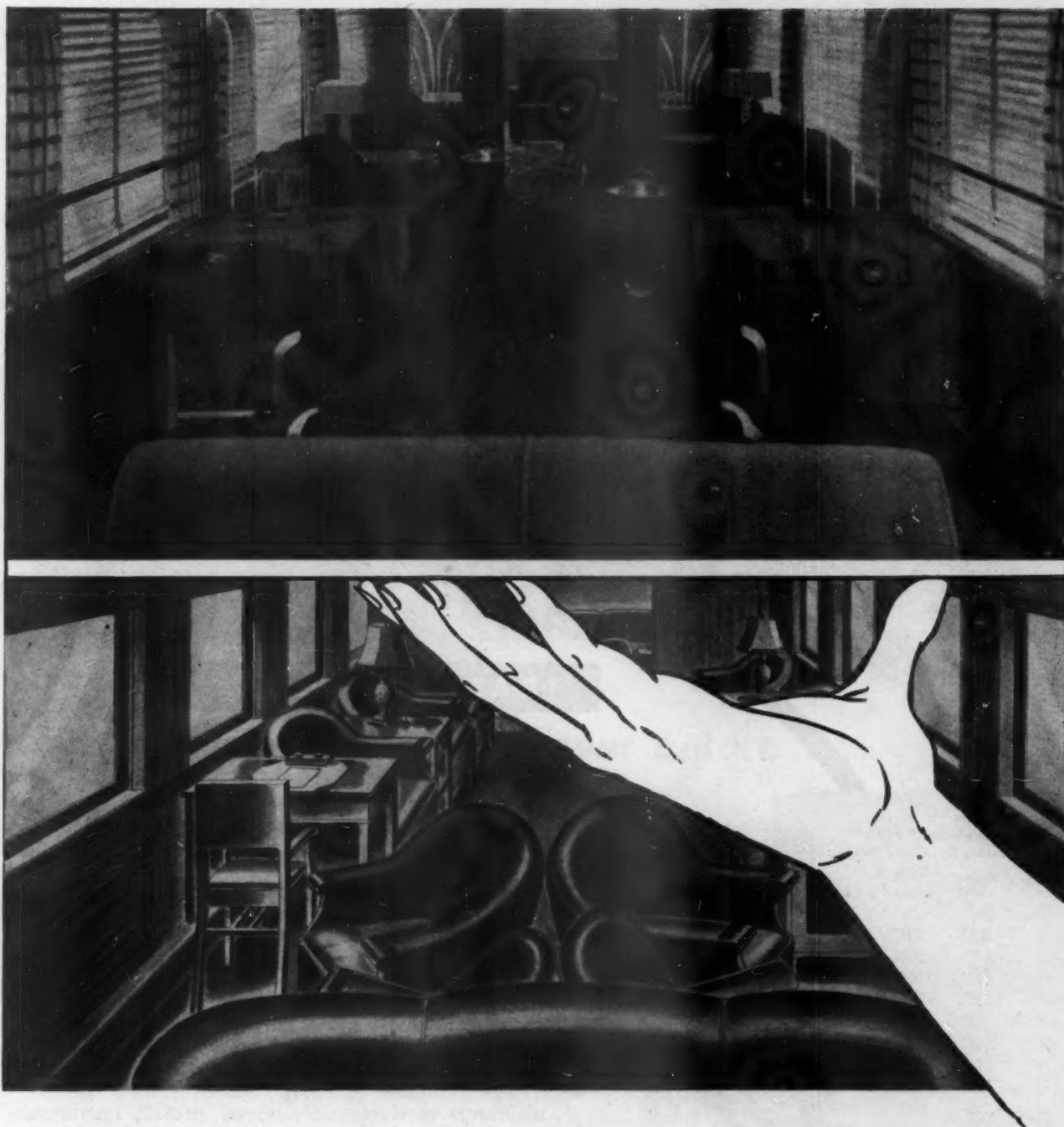
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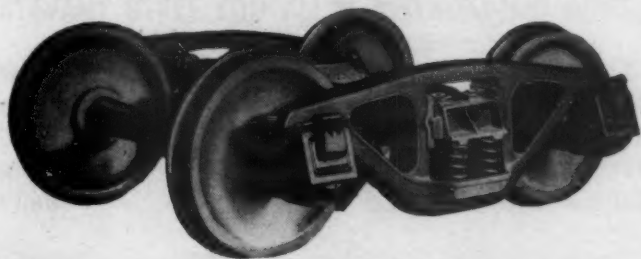
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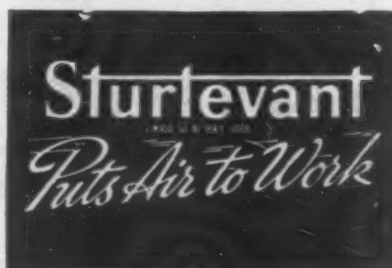
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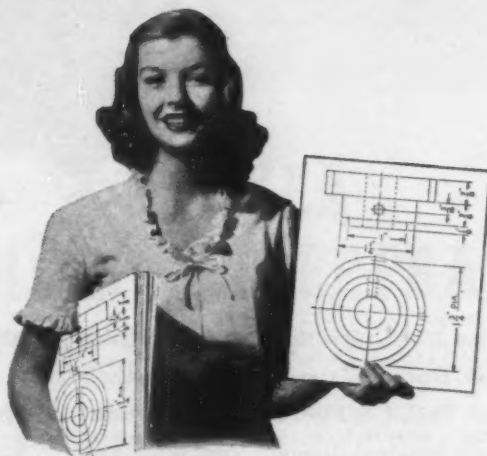


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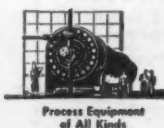


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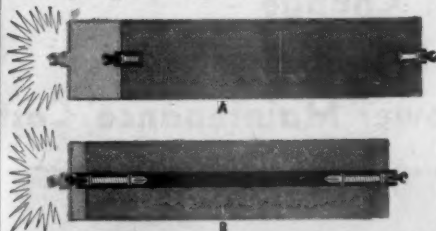
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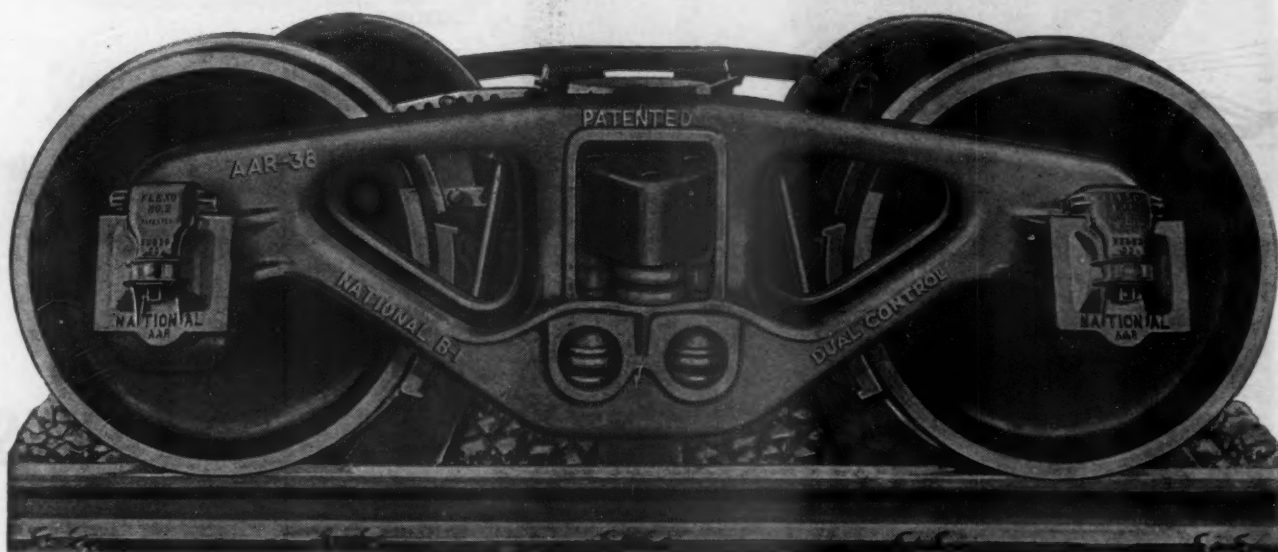
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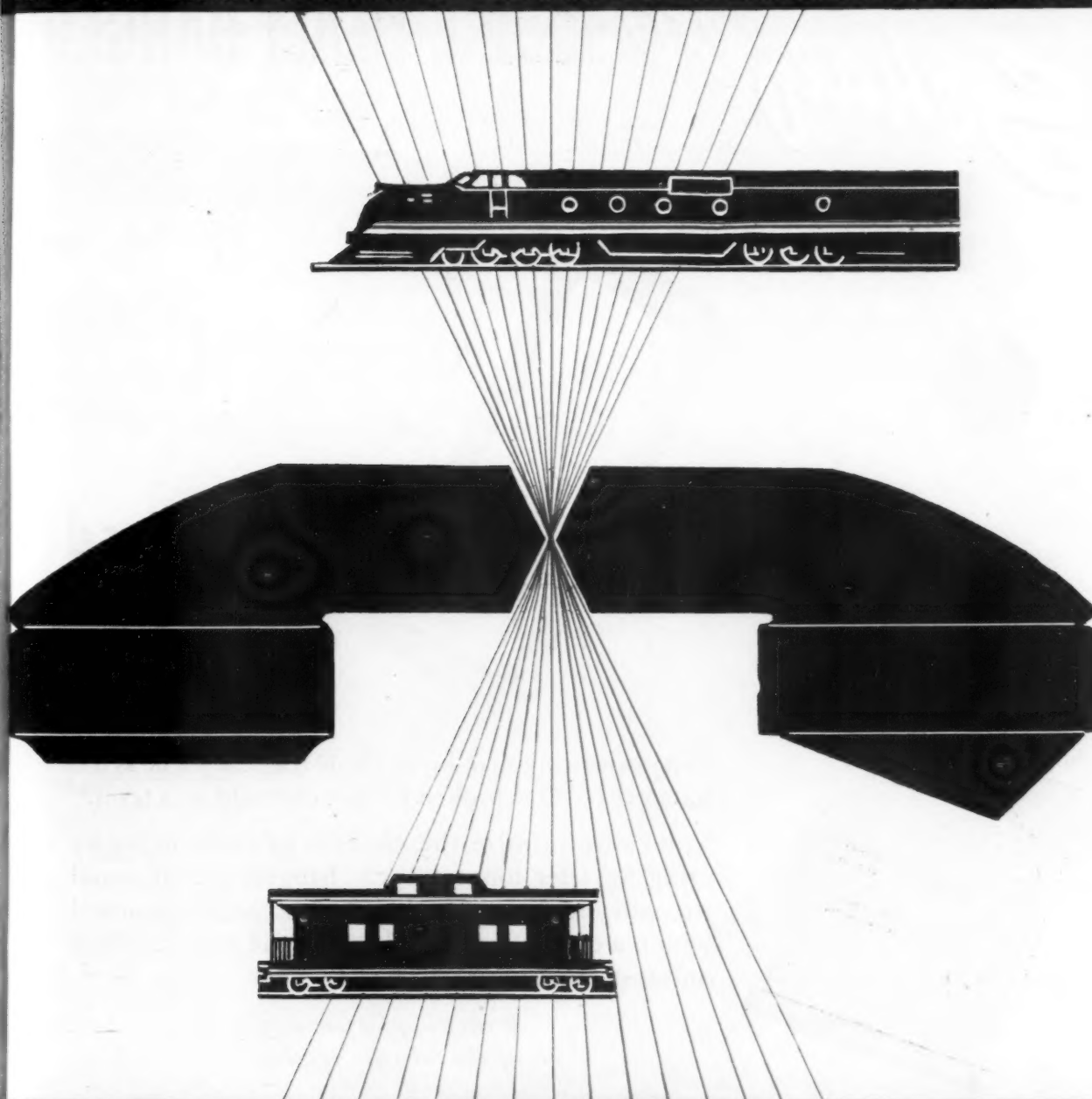


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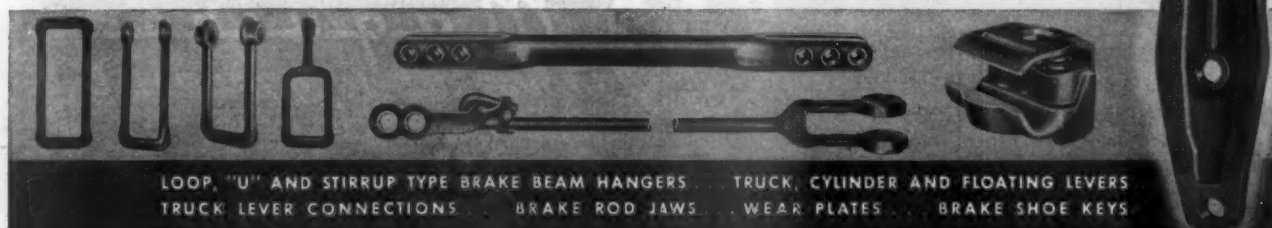
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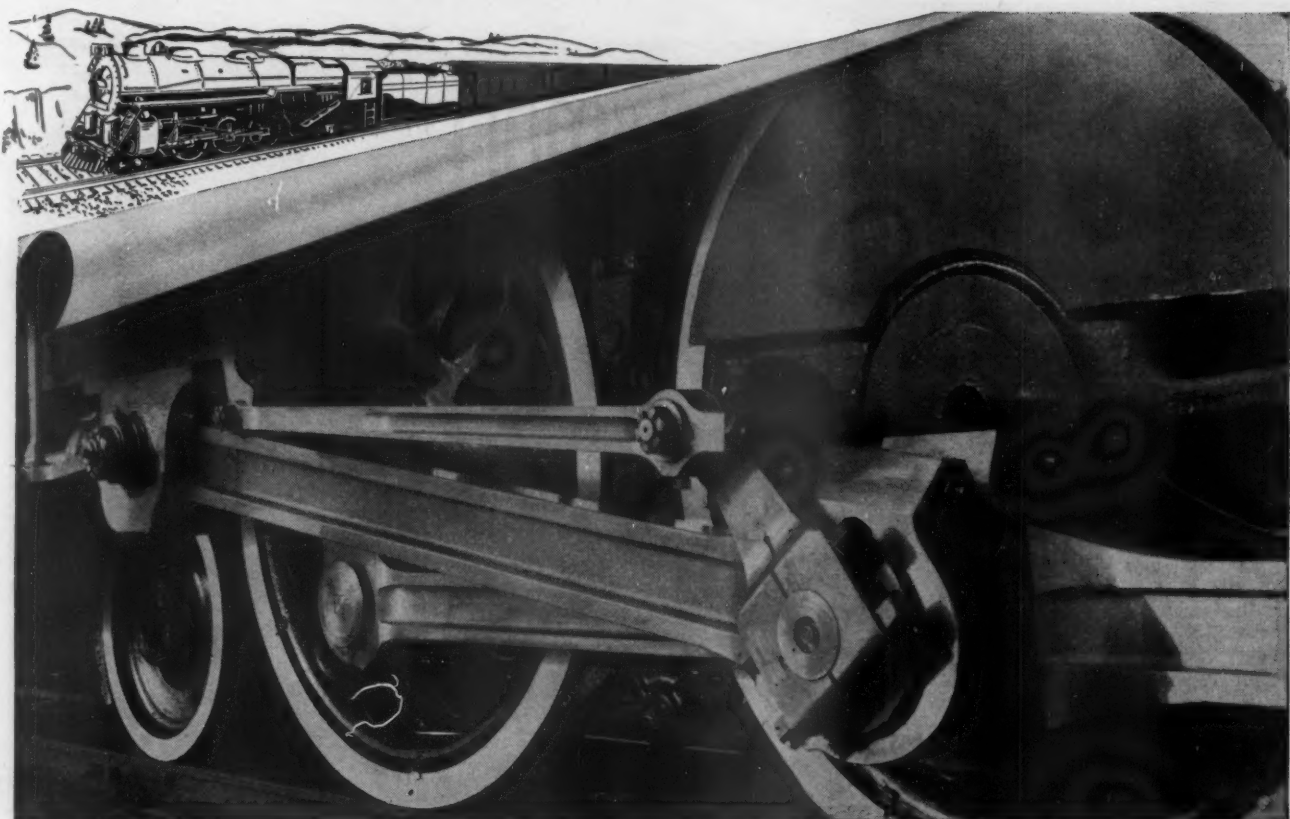
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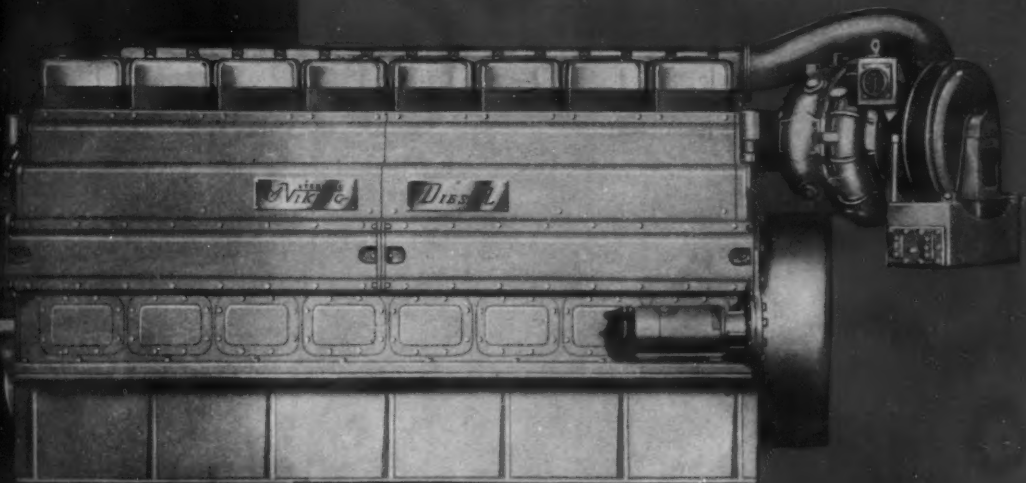
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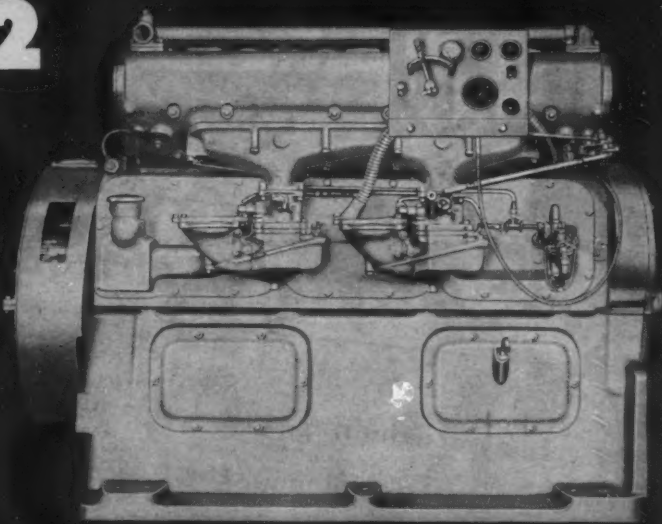
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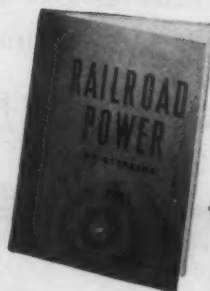
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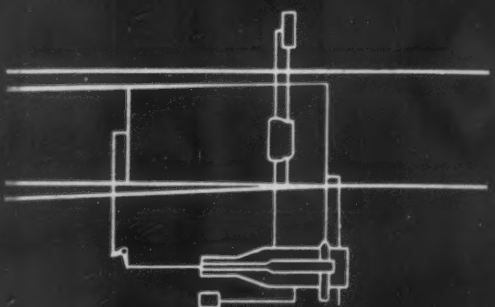
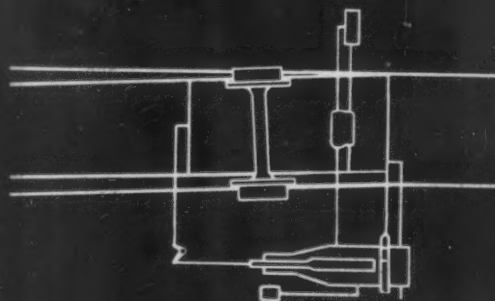
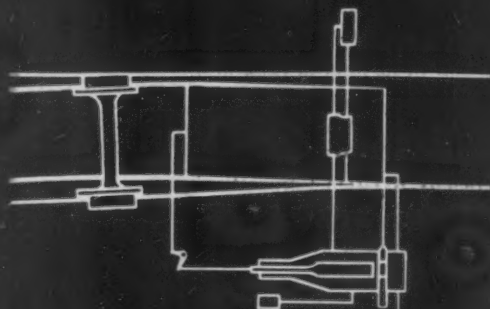
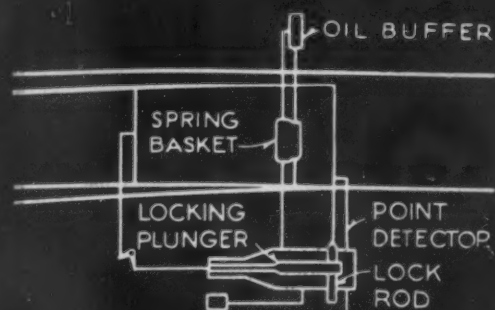
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The Week at a Glance

NO STEPCHILD: If the railroads are to get anywhere in the post-war competition for business, they will need to provide more attractive service than ever before. Success in providing such service will depend on the adequacy of their equipment and the adequacy of their fixed plant. The need of a wider appreciation of the importance of this second factor is the subject of editorial discussion this week. Unless bridges, tracks, shops, stations, signals and service facilities get as much attention as mobile equipment, and a proper proportion of the appropriations for improvements, it will not be possible to produce the service the public will demand, no matter how much effort and ingenuity and capital may be put into new equipment.

CALCULATED CONFUSION: The voters (at least a considerable portion of them) are mixed up about the intentionally camouflaged socialistic practices of tax-free, tax-supported outfits like the Tennessee Valley Authority, this issue's leading editorial points out, because the upholders of that sort of business have been successful in making it appear that the price it charges for its product and its service is equivalent to their cost. As long as the payers of federal taxes remain complaisant while funds they provide are being uneconomically used for the benefit of a few firms and individuals in a limited section of the country, the beneficiaries of that arrangement are not likely to register any very loud objection to its perpetuation. If the taxpayers are to be aroused to the danger that this wasteful and inherently anti-democratic institution may be used as a pattern for others in all parts of the country, if they are to be convinced that creation of a flock of these bureaucracies will ring the knell of free enterprise based on private capital, then, it is suggested, it is time for all anti-Marxists to do some educational work. When diligently used, the truth is a good tool, too.

100-MILE C. T. C.: A 100-mile subdivision of the Burlington in Nebraska, part of the Chicago-Denver main line, recently has been equipped with centralized traffic control, and the methods of construction and operation are described by that road's signal engineer, W. F. Zane, in an illustrated article in this issue.

ESSENTIAL TRAVELERS: It matters a lot whether the men in the armed forces are demobilized as rapidly as possible, but that is not the only thing that matters. It is even more important, an editorial this week observes, that the domestic economy be in shape to receive them when they get home. If it is to be functioning smoothly, if the complex mechanism of peace-time production and distribution is to get going promptly, so that there will be jobs for the discharged service men and a generally prosperous era in which they can reroot themselves in civilian life, then it is essential that some consideration, and if necessary some preference, be shown the "civilian" business traveler now, so

that he can do his essential part in reviving the economy on which the demobilized veteran will be dependent for security and opportunity when he gets home. The veteran may better be impatient over a few hours' delay than a victim for months or years of a stalled economy.

NEW NIGHT COACH: A description appears herein of the "Slumberliner" coach which A. C. F. designers have developed as a bid for the patronage of post-war travelers. Lockers, automatic doors, handsomely appointed lounges and washrooms, special provision for children, functional drapes—these are some of the features that make it difficult to see the kinship between the newest coaches and the pre-World War I type, so many of which are still rolling along, giving dependable service and safety but nothing special in the way of comfort and eye-appeal.

DEMOBILIZATION: It isn't clear yet just what the curtailment of purchases of materials and supplies by the armed forces will mean in terms of ton-miles, but it's evident that a substantial drop in traffic is involved. It is even more difficult to foresee the effect on railroad passenger business of the abrupt shift in the troop travel program from a "redeployment" schedule to a demobilization and replacement schedule, when that condition is further complicated by the end of civilian gasoline rationing. As reported in the news pages, the Army appears to have the idea that there will be no more freight congestion, but it expects passenger facilities to be taxed to the limit for some months to come. Men will soon be coming back from overseas at the rate of 500,000 a month or more, General Gross says, and they will require a lot of passenger cars. On the other hand, the seven moves per man involved in "redeployment" to the Pacific won't have to be made in many thousands of cases, and that, with other factors, seems to be influencing some O. D. T. relaxations of civilian travel controls.

SOME M. R. S. RECORDS: An idea of what constitutes a day's work for the Military Railway Service in Europe is conveyed by the article on page 329 by General Gray, who gives some statistical evidence of the achievements of the railway battalions in moving the freight over seven times the mileage of rails in France and Belgium and Germany that it was anticipated they could operate.

NO LICENSES: The Federal Communications Commission has cleared up the uncertainty over whether railroad employees using radio in train communication would be required to have radio operators' licenses. They won't. As reported in the news pages, that agency has decided that its requirements will be satisfied if the employees who use the radio installations familiarize themselves with, and pass examinations on, comprehensive rules worked out by the A. A. R. for the carriers.

UNWINDING THE O. D. T.: A few of the multitudinous war agencies of the federal government have been exhibiting a very commendable zeal to fold up, now that hostilities have ceased. One that seems to be in this truly phenomenal condition is the Office of Defense Transportation, which has been going out of business so rapidly since August 14 that its staff must be dizzy from the job of revoking orders, closing field offices, and easing onerous restrictions. The summary of such activities which appears in the news pages this week reveals an almost complete relinquishment of controls over motor vehicle operation. As this issue went to press, the limitation of conventions had been eased, but not entirely lifted; horse racing, automobile racing and group travel for business purposes had been allowed; tank car controls had been ended; the ban on seasonal passenger trains had been cancelled; and other orders affecting railroad operation had been modified. Further action to free the railroads from O. D. T. restrictions was promised as soon as traffic conditions justify it.

RADIO IN YARD WORK: Experiments in Jacksonville, Fla., in using a dual-frequency radio installation for communication between control towers and trains in yard operation are outlined in a feature article herein. The purpose of the tests was to determine the feasibility of dividing a terminal area into two sections for purposes of radio communication, each with a control tower, in order to provide for more satisfactory operation where a large number of locomotives is involved. The system used permits communication at will between engines and either tower, and also between the two towers.

ACCOUNTING ANALYZED: The four separate functions of a fully-developed railroad accounting department are outlined in an article herein (on page 333), the theme of which is that it is an economy to spend money on accounting (or any other activity) if the results produced enable management to function more efficiently and productively. Starvation treatment of a department with such potential usefulness, it is suggested, is a result of inadequate appreciation of what a fully energized organization can contribute to the better performance of the whole railroad.

NEWS IN BRIEF: Allghany Corporation is going ahead with plans to merge the C. & O., Nickel Plate, Pere Marquette, and Wheeling & Lake Erie. . . . The end of the war caused the I. C. C. to cancel a number of service orders, some of which had been in effect as long as three years. . . . Pullman has given notice of intent to cancel contracts with the railroads for the operation of sleeping cars, a step toward compliance with the court's divorce order. . . . Extension beyond the end of the year of the suspension of the Ex Parte 148 freight rate increases has been agreed to by the railroads. . . . American railroads now have 3,202 Diesel locomotives.

HOW TORPEDOED "HONOLULU" CAME HOME 12,000 MILES

Historic Trip Made Possible by OKONITE Cable
that Fed POWER and OIL to Submersible Pumps

P.O. BOX 10
LOS ANGELES, CALIFORNIA

(The dispatch summarizes)

BYRON JACKSON 8" ELECTRIC SUBMERSIBLE SALVAGE PUMPS
PLAYED AN IMPORTANT ROLE IN THE SAVING OF THE CRUISER
USS HONOLULU, VETERAN OF THE BATTLE, WHEN SHE WAS
HIT BY A JAPANESE AERIAL TORPEDO WHILE BOMBARDING
SOME INSTALLATIONS IN SUPPORT OF THE LEYTE IS-
LAND. THE FINE PERFORMANCE OF THESE PUMPS IN
DEWATERING THE CRUISER'S FLOODED COMPARTMENTS,
COUPLED WITH AN EFFECTIVE DAMAGE CONTROL JOB, EN-
ABLED HER TO COME HOME 12,000 MILES UNDER HER OWN
POWER FOR REPAIRS. THE BUREAU EXTENDS THANKS AND
CONGRATULATION BOTH FOR YOUR EXCELLENT PRODUCTION RES-
ULT AND FOR THE RESEARCH AND DEVELOPMENT EFFORT
WHICH MADE THIS VITAL EQUIPMENT AVAILABLE TO THE
NAVY.

R. L. Cochrane

R. L. COCHRANE
VICE ADMIRAL, USN
CHIEF OF BUREAU OF SHIPS

Operator's
Telephone Branch 10, 5475

BUREAU OF SHIPS SPEEDLITER

U.S.S. "Honolulu" gets "First Aid" at Leyte

• At a time when naval salvage is of the highest importance to final victory, a story has been disclosed which involves high engineering ingenuity as well as a crew's devotion to duty. It is the account of a voyage of nearly half-way across the world by a never-say-die cruiser which had been hit by an aerial torpedo at Leyte — the U. S. S. "Honolulu"

In a letter reproduced here, Vice-Admiral Cochrane cites the performance of the submersible salvage pumps of the Byron Jackson Company. These pumps are served by unusual "double duty" Okonite cables, furnishing not only necessary power but necessary oil at the same time.

In the research and development mentioned by the Admiral, Okonite engineers cooperated closely with those of Byron Jackson. As a result a cable construction was developed which is water-tight from without, oil-tight from within, combining excellent electrical properties with thorough protection against leaks. Each submerged pump's electric motor operated within an oil bath maintained under pressure through a tube incorporated in the multi-conductor neoprene sheathed Okonite electric cable.

Okonite engineers are always available for consultation with design engineers and others in solving unusual problems of electrical power transmission and distribution by the development of cable assemblies specially manufactured for the service under discussion. The Okonite Company, Passaic, New Jersey.

This 1½" diameter Okonite submersible pump cable has:

- (a) 3 Okoloy-coated copper conductors size 3 AWG with 5/64" varnished cambric insulation on each
- (b) 2 Okoloy-coated copper bare neutral conductors
- (c) 1 flexible copper tube with paper wrap
- (d) 4 Okoprene oil-resistant coated tapes wrapped over the twisted core for mechanical strength
- (e) Protective sheath of solid Okoprene over all

Take-up reel with pressure reservoir for maintaining oil supply under pressure between starter and motor



Byron Jackson 25HP 3-phase 60 cycle 220/440 volt submersible salvage pump and motor

Flooded compartment being dewatered by a Byron Jackson submersible salvage pump. Its electric motor operates within a sealed oil bath maintained under pressure through a tube incorporated in the multi-conductor neoprene-sheathed Okonite electric cable which supplies power to the motor.

OKONITE



insulated wires and cables

RAILWAY AGE

"The Authority Issue"

One of the "post-war" bills now before Congress, and actively supported by the political element which assumes that the American people cannot earn their own living without the assistance of a bureaucracy to admonish and molest them, is one which would create nine more "authorities" similar to the Tennessee Valley Authority to direct economic development as the T. V. A. does in its region. T. V. A. is a device cleverly calculated to pervert people from self-reliance and private enterprise to dependence upon, and ultimate slavery to, politicians and bureaucrats. It has made many friends among the unwary whose allegiance to economic and political freedom, while genuine, is naive and unlettered, and who have been beguiled by the discretion of T. V. A. in not talking too much about its real purposes, and by its generous bestowal of "benefits"—somewhat as a house of questionable repute may be tolerated in a neighborhood because the establishment is so outwardly decorous and the inmates so cautious in their public appearance that only the knowing can suspect anything amiss.

Shell-Game Socialism

As Al Smith once said of the New Deal's popularity with the electorate: "They don't shoot Santa Claus"—and T. V. A., having an investment of about three-quarters of a billion of the public's money on which it has to pay no interest and only token "taxes," is in a position to play Kris Kringle on a lavish scale. Private industry—principally in power and transportation, which are the leading objectives of T. V. A.'s campaign for undermining private enterprise—could not take on the Lady Bountiful role as T. V. A. has done, even if animated by far more generous impulses, because private enterprise does not have the funds with which to indulge such philanthropy, after it has paid interest on its investment and after it has been mulcted of the taxes which have gone to provide T. V. A. with its capital. Moreover, the bookkeeping of private enterprise has to be honest and unequivocal or its accountants will go to jail.

T. V. A.'s shell-game socialism with its charging to transportation the capital used in the production of power, so that it may claim a striking economy in power production (as was demonstrated in these pages in our August 11 issue)—is camouflaged and hence more dangerous than such a straightforward socialist program as that of the British Labor party. It is worse also, because it undermines the understanding of the electorate—leading them to confuse the useful and economical with things costly and of less value, and thus induces them to waste their labor and their income.

The T. V. A. development has even led to the estab-

lishment of a sea-going shipbuilding industry on the Tennessee river—whence the route to tidewater is down the Tennessee to the Ohio, thence down the Ohio to Cairo, and all the way down the Mississippi to the Gulf. The private interests that so located a shipbuilding industry would, no doubt, feel aggrieved if asked to pay a pro rata share of the capital and maintenance costs of the artificial waterway, without which sea-going ships could not be built in so exotic a place. But who *should* pay the necessary incidental costs of establishing a sea-going industry at a point so far inland? Should federal taxpayers pay them? Aren't there more pressing and more useful ways in which taxes can be spent? If tax money *must* be used to hot-house the development of industry anywhere, why not use it to foster the installation in an economical location?

An economy inevitably goes awry when costs and prices are divorced. The cost of water transportation in the T. V. A. area is the cost of operating vessels *plus* the cost of building and maintaining the waterway, but the *price* of T. V. A. water transportation is only the cost of operating the vessels, since the capital and maintenance cost of the waterway is unloaded upon the taxpayers. Since the price of such transportation looks cheap, the unwary public is induced to demand more and more of it. And thus T. V. A. not only (1) promotes the spread of socialism by undermining self-supporting private enterprise which cannot escape making its prices cover all costs, but (2) it also dissipates the national wealth and income by misleading pricing which creates a demand for further expenditures on less efficient plant and deflects investment from the more efficient.

Uncovering T. V. A. Subversiveness

The spread of the "T. V. A. idea" to other regions would, thus, inevitably enlarge the area in which Americans are ceasing to be the masters of their government, and are becoming its employees and vassals; and it would also reduce the national wealth and income. A group of "31 national and regional land and water organizations" has issued a pamphlet entitled "The Authority Issue" which ably uncovers some of the essential subversiveness of the T.V.A. program, and copies of this pamphlet may doubtless be obtained by request to any of the participating organizations—one of which, for instance, is the Mississippi Valley Association, with headquarters in the Munsey building, Washington, D. C.

The arguments against the T. V. A. idea as presented in this pamphlet are unanswerable, provided the reader is an American and not a Marxist. We hope the booklet will have a wide and attentive audience—and especially among the members of the organizations which

are sponsoring its publication, since most of these are associations of inland waterway promoters, who are just as socialistic as the adherents of T. V. A. but not so clever.

Give Preference to Civilian Travel

Termination of the war with Japan has swiftly changed the conditions and problems with which the railways are immediately confronted. Until production for war has been largely replaced by production for civilian purposes there will be a sharp decline of freight traffic. Difficulties in getting equipment, materials and man-power already are history. The congestion of passenger traffic will continue while the armed forces are being brought back home from both the European and Asiatic fronts, but will be alleviated by increase in the use of automobiles and decline in civilian travel to army posts and ports.

Recognition should be given at once to the fact that civilian activities have become of paramount importance. It is desirable that our millions of soldiers and sailors should be returned to their homes as soon as practicable. But it is much more desirable that there shall be created as soon as practicable good domestic economic conditions for them to return to.

This emphasizes that the changes in railway passenger service made recently to meet the emergency due to heavy troop movements from Europe to the Orient should be speedily abandoned and the service put on a basis which, if any preference is to be given, will give preference to civilian travel. The conduct of normal business requires much travel by business executives, and especially by salesmen. And business is not for months going to be normal. It is going to require much travel by business executives in connection with reconversion from war to peace production. It is also going to require an extraordinary amount of travel by salesmen in renewing contacts with their customers and seeking orders from them.

During the war we have had a sellers' civilian market. Now we are going to have a buyers' market. Civilian goods have to be sold in large volume before they can be produced and distributed in large volume. A high level of employment is dependent upon a large volume of production and distribution. Hence, every reasonable measure practicable, including prompt adaptation of passenger service to civilian needs, should be adopted that will help promote full revival of sales of civilian goods.

Meantime, to what extent will railway managements take advantage of the opportunity immediately ahead to

begin rehabilitating and improving their properties? This, no doubt, will depend in large measure upon how optimistic they will be in spite of the decline that will occur in the months immediately ahead in their freight traffic and earnings. And, in fact, the total volume of business done in the country for some years after reconversion will depend largely upon how optimistic business men as a whole are. We are heading into one of those periods in which if we act pessimistically business probably will justify our pessimism, while if we act optimistically it probably will justify our optimism. Fortunately, there seems to prevail a general spirit of optimism regarding what the volume of business will be after reconversion has been accomplished in industries requiring it.

Into the Discard

Considerable publicity has recently been given to the effort of an association of California railroad "fans" to preserve the Yosemite Valley line from the scrap heap by floating a bond issue to purchase it. Most short lines and branches have been able to break even during the period of heavy war transportation. Some branch lines on which war industries are located have contributed important sums to the owning railways' coffers. It is likely, however, that in peace-time the attrition of railway mileage through abandonment will be renewed.

Railroads are not able to engage in unlimited philanthropy by continuing in operation lines and services which persist in failing to pay expenses. On the other hand, branch lines and short lines are feeders to main

Quick with the Shade, Auntie, or You'll Lose Your Man



lines—and when they are closed down and their traffic is forced onto the highway, the railroads do not lose just the unprofitable branch-line haul but some profitable main-line business as well. Therefore, anything which can be done to make these feeder lines self-supporting, avoiding the necessity for their discontinuance, is a useful service to the railroads as well as to the public.

A stubborn division superintendent has demonstrated that a showing of unprofitableness by a branch line is not necessarily conclusive. In this instance, his company's management had already received authority to abandon a 40-mile line, when this superintendent went to work to demonstrate that abandonment was unnecessary. He first visited the political powers in the two agricultural counties served by this branch and indicated to them the serious effects which loss of this branch's taxes would have on the school and road funds of the counties. The county commissioners in both counties cut the taxes of the branch in half and became enthusiastic unofficial traffic solicitors for it. The superintendent visited every shipper and receiver of freight who could be served by the branch and pointed out that they were throttling it by using highway transportation. The line was situated in a territory where heavy snows blocked the highways three or four times every winter. The superintendent held meetings at every town served by the branch and pointed out that the railway could not possibly continue to supply emergency service at such times if not patronized at other times.

The net result was that the branch was permitted to remain in service and, instead of losing some \$5,000 per year, had average net earnings in the two years before the war of \$2,600. This experience suggests that more careful study be given to many proposed abandonments before they are made.

Aviation Policy

The August issue of "The American Press" reveals the results of a canvass among editors of country newspapers in which they were asked to answer the following question:

"Do you think the cost of an airport should be paid by the federal government, the state government, the county government, the town government, a private corporation, or some combination of these groups? If a combination, what do you think would be the best arrangement?"

The answers revealed that only 13.2 per cent of the editors favored limiting airport development to private enterprise, and 71 per cent favored the participation of the federal government in some degree. Although in the minority, advocates of development by private capital were clear and forceful in their opinions, as is indicated by the following response from North Carolina:

"Airports should be handled by private corporations. Airports have been sponsored, nursed and taken through to the point where they should be able to pay their own way from now on."

But that opinion is not typical, while the following one (from Michigan) is widely representative:

"State and federal highways—why not airports?"

A railroad officer who follows aviation developments

closely, and who called the foregoing survey to our attention, commented, in substance, as follows:

"The idea of public ownership of airports is so firmly entrenched that it would be difficult to dislodge it. I do not believe people half-way realize what the ultimate effect of this continuing and unlimited increase in the diversion of the cost of transportation from users to taxpayers will be on private ownership of railroads. There are probably \$10 of public capital invested in commercial air transportation for every dollar of private capital and, in addition, many services essential to plane operation are provided free by government.

"This invasion of public capital into transportation not only presents a growing obstacle to further investment of private capital in the railroads, but it creates an intolerable inequity in comparative taxation, since publicly-owned facilities yield no taxes. In 1944, airline taxes were but 14.5 per cent of revenue while railroad taxes were 20.4 per cent of revenue—and the railroads had maintenance and capital expenses to pay in addition for services which the airlines received as a *quid pro quo* for their tax payments.

"The editors and the public—and, I fear, few railroad men—know much about such facts as these. I do not think we should accept as a final public judgment on transportation questions an opinion reached in ignorance of important pertinent facts, within our power to make known.

"The nation needs the railroads, for national defense and for transportation service, fully as much as it needs planes, and probably even more than it needs highways and waterways. For the nation to adopt an 'air policy' or a 'highway policy' or a 'waterway policy' independently, and without regard to the effect of these particularistic policies on the provision of adequate railroad service, would be most unrealistic and dangerous. Rather, what is required is a comprehensive national defense policy, which will not overlook ample provision for necessary transportation; and an equally comprehensive transportation policy which will not allow the main dish to waste away while it exhausts the federal treasury on the hors d'oeuvres."

There is little to be added to such a summary—except to observe that the railroads' efforts thus far at public education in the economics of transportation have been rather piece-meal and defensive. If the railroad interest requires, as it surely does, that public policy arrive at a program which will provide for the orderly and economic development of all forms of transportation, each in the sphere of its own "inherent" superiority, then the first step in the educational process would appear to be for the railroads themselves to attempt to formulate such a policy, not contenting themselves merely with the recital of the inequities in the present treatment of the railroads. It is inevitable that the public will insist upon the development of aviation, the further development of highways and, less justifiably, some waterway improvements. Might it not be well to tell them in clear and specific language how they can attain all these objectives without sacrificing their continued interest in efficient railroad service, under private ownership and operation?

New Attitude Demanded Toward Fixed Properties

Prosperity for the railroads in the years ahead, as the competitive agencies of transportation, blocked by the war, get back into their stride on a broader and more attractive scale than ever before, must be looked for only on the basis that the railroads have something to offer that the public wants—and past experience has demonstrated conclusively that that must be more than

the railroads offered prior to the war. What the railroads will have to offer in their only product, transportation, will depend primarily upon two things—the adequacy of their equipment and the adequacy of their fixed properties.

If lightweight freight cars, streamlined passenger trains and radically-improved power will solve the problem of winning and holding traffic in the post-war years, that problem is as good as solved. Railway managements are definitely equipment-minded today, and the railways are certain to bring out equipment that, in terms of service, comfort and appeal, will surpass anything to date. They have been making plans to this end for many months; a considerable amount of such equipment is on order; additional units will be purchased as rapidly as conditions permit.

But, unfortunately, equipment, in itself, no matter how adequate, how comfortable, or how appealing, will not do the job. There is the second factor to be considered—the adequacy of the fixed properties—tracks, stations, shops, engine terminals, on-line servicing facilities, etc. What will be the attitude of management toward this second essential of successful post-war rail transportation?

It is a well-known fact that, in the past, the tracks and structures have been the first to feel the pinch of retrenchments. In many cases, cuts have been early and drastic. Even in the midst of the war, maintenance of way and structures expenditures on some roads were delicately sensitive to traffic demands, although the wear and tear of traffic at all times far outstripped the strength and stability that were being built back into an already weakened track structure. Furthermore, as early as the day after V-J Day, the management of one large road was already asking its maintenance of way department how much expenditures for track and structures could now be cut. What the answer was we do not know, but what the answer to such a question should be if directed to the maintenance departments of most roads of the country—in the face of the heavy traffic of recent years, the generally deferred maintenance that has piled up as the result of shortages in materials and man-power, and the demands for speed, comfort, safety and economy in the years ahead—is beyond doubt.

That a "stepchild" attitude toward the fixed properties still prevails in some quarters indicates a serious lack of appreciation of the overall problems that confront the railroads. On most roads, the days ahead must be days of "catch-up" and "build-up" for their fixed properties. Any other policy may well defeat the most grandiose plans for equipment.

The Millennium Is Not Yet

One emergency after another seems to be the lot of railway engineering and maintenance officers. Among this group of railway men the word "normalcy," once used so glibly in hopeful discussions of what was to be, is now practically in the discard. There was a time when it seemed to have real meaning and significance, denoting a vaguely-defined state of affairs that had been lost but which some day would return, whereupon all problems would magically be solved. But now the reaction

inspired by talk of "normal times" is more likely to be a sort of poignant wistfulness, somewhat as one remembers the oft-promised pony of childhood days that never quite materialized.

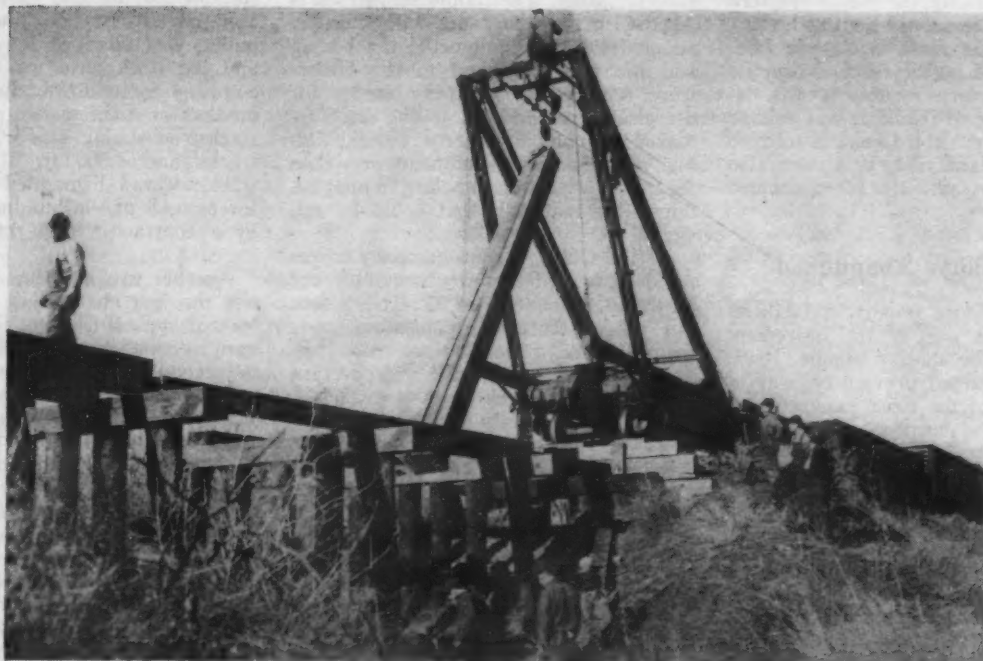
Not for fifteen years have maintenance and engineering officers enjoyed a state of "normalcy" in discharging their responsibilities. During practically all this time it was necessary for them, first because of the depression and then because of the war, to carry on their work under what amounted to emergency conditions. Now the war has ended, but would it be correct to assume that at last the long-awaited day has arrived; that henceforth the responsibilities of the maintenance man and the engineer will again become simply a matter of routine upkeep, replacement and improvement? It is scarcely necessary for one to possess any unusual powers of divination to conclude that such an assumption cannot be made.

The fact is that, although the thunder of war has died away, engineering and maintenance officers still find themselves faced with a multitude of difficult problems and questions, some of which demand immediate attention while others are more of a long-term nature. In the first-mentioned category are the problems arising with respect to the availability of men, materials and equipment. Consider, for instance, the question of labor. Superficially it would appear that, with war plants being shut down all over the country, the difficulties of obtaining labor for track, bridge and building gangs would soon disappear. But there are a considerable number of maintenance officers who are convinced that this problem will not be solved easily or quickly, and they have sound reasons for thinking so. On the other hand, the prospects for getting needed materials and equipment, and getting them soon, are decidedly more favorable, and maintenance departments should be prepared to take maximum advantage of this situation, for not only are the current needs of the properties still great but there is a vast amount of deferred maintenance that must be made up as rapidly as possible.

Underlying the immediate problems resulting from the coming of peace is the long-familiar one of providing, with maximum economy, a railroad plant of maximum efficiency. Like the visiting relative who became a permanent boarder, this problem is ever present, but now it has taken on a new urgency arising from the certainty that competition in transportation will become increasingly keen. It has many phases, including the necessity of raising the performance of all maintenance gangs to a new peak of efficiency; the need for building still greater durability, stability and permanence into the track structure; the insistent demand for replacing obsolete facilities of all types with modern structures embracing the latest technological developments; the necessity of carrying out extensive curve and grade-reduction projects as an aid to faster and more economical train service; and the desirability of station modernization on an extensive scale as a means of winning public good will for the railroads.

With all these matters and many others clamoring for prompt attention, it is apparent that the maintenance man and the engineer will have little time for reflection over their splendid war-time achievements. Great as were these achievements, they must be equaled, if not surpassed, in the period that is now unfolding.

Retires Many Obsolete Property Units



Removing Usable Material from a Trestle on an Abandoned Line

WHEN the Chicago & North Western initiated its program of retiring facilities that had fallen into disuse, that had become obsolete or that could not be used to advantage, there was little expectation that the retirements would reach the proportions that actually developed, with respect to either the number of units to be retired or the magnitude of the investment represented by the discontinued facilities. While many of the units included in the program were small and of little consequence individually, with respect to either size or value, others were of greater importance from the standpoint of both size and value, especially as some of them included relatively large inventories of shop machinery and tools, as well as other equipment, while still others included a number of incidental buildings and machinery, as was explained in the previous article.

During the six-year period under discussion, extending from 1939 to 1944, inclusive, the number of units of fixed property that were retired reached a total of 6,626. In addition, during the same period 9,824 locomotives and cars were retired, including 8,399 revenue-freight-train cars, 391 locomotives, 115 passenger-train cars and 891 work cars. As a further indication of the magnitude of the program, as it had been pursued to the end of 1944, the retired units of fixed property represented an original investment of more than \$24,500,000 and the investment in locomotives and cars was in excess of \$24,000,000. When the

Part I of this article told of the North Western's large program since 1939 for retiring obsolete facilities and equipment. Part II describes disposal methods

Part II

general expense connected with their construction or acquisition was added, the total investment in these units amounted to approximately \$49,000,000.

Facilities Not Replaced

In this connection it should be borne in mind that both the fixed property and the locomotives and cars under discussion were retired without equivalent replacements. Normally, when facilities are retired and replaced, the same organization that carries out the new construction can be employed to dismantle the old structures. In this case, however, it became necessary to develop methods for disposing of the retired property with specially-organized company forces, through contractors or by sale. In disposing of these facilities, some usable items, particularly machine tools and

power-plant equipment, were transferred to other points where they could be used to advantage. In either event, however, much planning and considerable supervision were required in both the preparation for removing the structures and the actual disposition of the buildings, tracks and equipment, as well as of the locomotives and cars.

In a relatively few cases, where tracks or buildings of minor importance were involved, the section force or a carpenter gang was able to dismantle them without disrupting their routine activities. In others it became necessary to organize special forces or to make a special assignment of an extra gang or a bridge and building gang, with suitable power equipment, to insure quick completion of the work. In still other cases contractors were employed to dismantle the facilities, particularly branch lines and the larger buildings, with the proviso that they return certain salvaged material to the railway. Some of the larger buildings, however, were sold to wrecking companies who retained the salvage, with the requirement that they clear the site of all debris. Many of the smaller frame buildings, such as small stations and miscellaneous structures, were sold to persons in the neighborhood for removal intact from the right of way, or for salvage.

There were three special cases involving important structures that should be mentioned at this point. For many years the railway had maintained coal docks at Sheboygan, Wis., and Escanaba, Mich.,

which had been leased to the C. Reiss Coal Company. As a part of the program to divest itself of facilities not required for the economical operation of the road, these structures were sold to the lessee. Similarly, the North Western owned a grain elevator at South Chicago, which was under lease to Cargill, Inc., but which could not be reached over its own rails. Because of this it was decided to dispose of it and it was sold to the lessee. In the third case, a tobacco warehouse at Janesville, Wis., was also disposed of through sale, for continued use by the lessee.

Large Shops Abandoned

Among the more important facilities abandoned as a part of the retirement program was the shop at Boone, Iowa, which, as explained previously, was at one time one of the most important on the system. The entire facility included a machine shop, 280 ft. by 160 ft.; an erecting shop; a boiler shop; a tank shop; a blacksmith shop; a car shop; a power plant; a transfer table; an engine-house; a turntable; a cinder pit; the usual number of incidental buildings and a number of shop tracks. In addition, a spacious tunnel connected the machine shop and the power house.

All of the machines and tools were cleared from the machine shop, the boiler

machine shop, a wheel-lathe shop, a blacksmith shop, a power plant, a 13-stall enginehouse with turntable and cinder pits, a number of incidental buildings and 8,947 ft. of track serving the various shop facilities. The shop machinery was disposed of in accordance with the plan adopted for this equipment; the boilers and the pipes attached to the boilers were removed by company forces for use elsewhere; and the tracks were removed by company forces. The buildings and remaining equipment were then sold to a wrecking company, which retained the materials that could be salvaged.

At the Chicago shop company forces removed one of the two turntables and all tracks, amounting to 9,751 track feet. All other structures, consisting of a freight house, a fuel station, an engine-house, a cinder pit and a gantry crane were sold to a wrecking company which was allowed to retain all salvage.

Yards Fall into Disuse

Belvidere, Ill., supplies an excellent example, somewhat but not entirely, similar to the shop plants at Boone and Missouri Valley, of how railway facilities became obsolete or gradually fall into disuse. For many years an important terminal was maintained at Belvidere, where a large amount of switching was

and sanding station, a relatively large stock yard and more than 10 miles of yard tracks. The water tank was left in place, since Belvidere is a water stop. All equipment from the shop that was suitable for use and that from the fuel and sanding station, including a car puller, was salvaged for use elsewhere, and the stock yard was torn down by company forces to obtain the recovered lumber for maintenance purposes. The tracks, consisting of 53,600 ft. of yard tracks and 4,500 ft. of second main track, were dismantled by company forces. All of the buildings were razed by a contractor who retained the salvage.

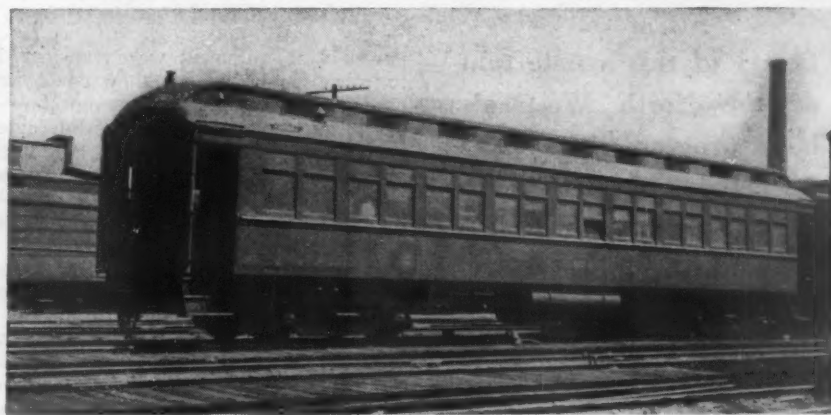
Another yard that had fallen into disuse through changes in operation was located at East Clinton, Ill. Many years ago, in connection with the construction of second track, the alignment at this point was revised, cutting off approximately nine miles of original main-line track, which was retained and continued in service as a freight line, as well as a small switching yard which was also continued in operation. As at Belvidere and Upton, this yard eventually fell into disuse, so that there was no further need to continue the freight line. As a part of the retirement program, therefore, company forces removed the tracks, as they also did those at Upton.

In general, unproductive branch lines were dismantled by contractors who turned over to the railway all material that was usable or that could be made usable, and all metal scrap. This included track materials, materials from bridges, buildings, water and fuel stations and other facilities. During the early part of the program, rail that was suitable for this purpose was used to replace lighter rail. Later, after the United States became involved in the war, and until recently, practically all of the rail recovered from these branch lines, amounting to 384 track miles for the six-year period, went to the army and navy for use in constructing tracks to serve war industries. In general, passing sidings and other side tracks not parts of yards were also removed by company forces.

A ready sale was found for many of the frame buildings that were retired. As already stated, some were sold in place for the salvage that could be recovered; others for removal intact from the right-of-way for use as farm buildings or for other purposes. The disposition of the stations retired in 1944 is typical of the manner in which these buildings and the miscellaneous structures have been handled as the program of retirements progressed. Thirteen stations were abandoned during 1944. Of these, eight were sold in place; two were removed by outside parties; and three were dismantled by company forces.

Mechanical Department Studies

In its studies of the feasibility of retiring units under its jurisdiction, the mechanical department had a four-fold problem to consider. First, it was nec-



One of the Types of Passenger Cars That Have Been Retired

ers and the power-plant appurtenances were removed, and these structures and the connecting tunnel were sold to the Iowa Steel Company for warehouse purposes. The land occupied by these structures was then leased to the seed company. The boilers and other equipment from the power plant were transferred to other points for further use. The machinery and tools from the various shop buildings were inspected carefully and were disposed of in accordance with a plan that will be explained later. All of the tracks serving the shop were removed.

Second in size of the abandoned shop plants, that at Missouri Valley, Iowa, the importance of which was explained in the preceding article, consisted of a

done. Changes in operating methods and in the routing of traffic had gradually diminished its importance, however, so that with the falling off in traffic which resulted from the depression, the yard was discontinued.

Furthermore, other changes in the handling of traffic that were developed during the depression period made it unlikely that the yard would ever again be needed. It was during an inspection at this point that Mr. Williams suggested the surveys to disclose whether there were other obsolete or unused facilities on this road.

The plant at Belvidere consisted of a machine shop, a boiler house, a fan room, a 16-stall enginehouse with turntable and cinder pit, a water station, a fuel

essary to decide whether all or a part of a shop plant could be abandoned without detriment to the departmental operations; second, if the answer was affirmative the question arose immediately as to what disposition should be made of the machines and other equipment, for no shop of any consequence is so completely out of date that all of its machines and equipment are obsolete. As a corollary to this problem it was found desirable to make a detailed study of the machinery and tools in all shops on the system, with the view of arranging for a better distribution of the shop equipment.

For several years it had been the policy of this road to concentrate the heavier repair work on locomotives and cars at the principal shop and terminal points. It followed obviously that this called for a similar concentration of up-to-date shop machinery and tools at these same points. As a matter of fact, however, this rearrangement of the machine and tools had not kept pace with the shifting of the heavier repair work, and some of the minor shops were found to be in possession of certain modern machine tools of greater capacity than they needed, some of which they were using only part time or not to advantage in other respects, while some of the larger and busier shops lacked similar equipment and were using smaller or outmoded machines. In several cases, at small engine terminals where only two or three locomotives laid over, machine tools were found that could be used full time in more important shops, but which were required only occasionally where they were installed.

Machine Tools Transferred

As a result of this system-wide study, which was stimulated by and became a part of the retirement program, but which was not related to it entirely, many of the larger modern machines were transferred to more important shops where they were needed badly. Literally hundreds of the older and outmoded machines were retired and sold as scrap, from both active shops and

shops that were being discontinued. Fortunately for the road, this activity occurred at a time when there was a widespread and insistent demand for machine tools and other items of equipment for war plants. Because of this demand, 368 machine tools that were suitable for the purposes for which they were desired, were sold to war industries.

Whenever a machine was transferred from an active shop, the need for a substitute tool was investigated. If there was such a need, another machine that was suitable for the requirements was sent to replace it, and many such replacements were made. In addition, as traffic increased with the approach of war, and later with the opening of the war itself, it became necessary to expand shop facilities at both terminal and intermediate shops. In doing this, not a few of the machines that were not being used to advantage or that were particularly suited for operation in one of the enlarged shops, were transferred to these shops to increase the facilities that were most needed. It is a commentary on the care with which these studies were conducted that despite the large number of machines that were scrapped and of others that were sold, the shops on this road are better equipped today than they were when the campaign was started, primarily because the right tools are now in the right places.

In considering the desirability of retiring locomotives and cars, obsolescence, operating requirements and the cost of maintenance were the principal factors upon which the decision was based. Although the surveys were not started until the fall of 1939, a total of 197 locomotives had been retired by December 31, 1940. While the number was smaller for each of the subsequent years, the retirements ranged from 14 in 1943 to 94 in 1942, and by the end of 1944 had reached a total of 391.

Many Locomotives Sold

Of the locomotives retired, 50 were sold for service elsewhere, a number of them going to Mexico. The remainder were torn down, the usable parts being

retained for repairs to other locomotives of the same class that are still in service.

In some cases the dismantling was done by company forces; in others, the locomotives were sold to contractors who dismantled them for scrap, but returned usable parts to the railway, receiving a suitable allowance therefor.

It is a matter of more than passing interest that when the program of retirements was initiated in 1939, the North Western owned 1,477 steam and 4 Diesel locomotives, having an average tractive effort of 42,243 lb., and that at the end of 1944, there were 1,058 steam and 72 Diesel locomotives, with an average tractive effort of 44,508 lb. Of the freight locomotives alone, the average tractive effort increased during this period from 47,748 lb. to 49,358 lb. as a result of the retirement of the older locomotives.

391 Locomotives Retired

The North Western was in a favorable position with respect to the retirement of its older locomotives because it had purchased a considerable number of heavy freight locomotives several years before the retirement program was initiated. In consequence of these purchases, many locomotive runs had been extended, so that not a few of the older locomotives had been stepped down to less exacting service. This had resulted in a surplus of certain classes of motive power, some units of which have been leased to other lines. In addition, the acquisition of new Diesel-operated streamlined trains had had the same effect on passenger locomotives. For these reasons, the retirement of the 391 locomotives has been effected without detriment to the operation of the road and with considerable improvement in the cost of maintaining this class of equipment.

Cars were handled in a manner similar to locomotives with respect to both retirements and disposition. Those that could be sold to small roads for light service, including a total of 510 retired revenue freight-train cars, were disposed of in this way. The remainder were dismantled carefully with the view of recovering the maximum amount of usable material for application in the maintenance of other cars.

The management of the North Western considers that it is receiving large benefits from the retirements that have been made thus far. This has been demonstrated in reduced taxes and in reduced maintenance costs of both the fixed property and locomotives and cars, as well as in improved appearance of the property.

Not the least of the benefits that have accrued as a result of this campaign, however, has been the recovery of a large amount of usable material that thus became available for application in maintenance of way and maintenance of equipment at a time when new materials of the same types were extremely difficult of procurement.



One of the 138 Consolidation Locomotives That Were Retired or Sold

Merchandising Popular Transportation

American Car and Foundry Co. building attractive "packages" for coach passengers — Overnight travelers in coaches will find luxury appointments in new cars designed to attract their business

PRODUCTION of the "Slumberliner" coach for overnight travel has been started according to the American Car and Foundry Company. The design of this coach, while intended to offer maximum revenue to operating railroads, is intended to provide attractive and luxurious accommodations for travelers and incorporates many features either entirely new or not previously utilized in passenger coaches. Every effort has been made to incorporate a maximum number of features designed to provide travel comfort and travel entertainment. Among them are: improved washroom facilities for men and women, improved seating with a folding arm-tray at each seat, individually controlled day or night lighting, full-vision doors between cars that operate automatically, individual lockers, and a baggage rack which is a structural part of the car body and also serves as a light reflector.

Lounge and "Vanity"

Improvements have been made in the design of washrooms for both men and women which offer greater facilities and a higher degree of sanitation. Folding washstands in the men's room, to take care of the morning rush, fold back into the wall when not in use and a comfortable couch to seat three or four passengers replaces them. Armrests on the

couch may be folded back to provide a full-length sofa. The dual arrangement provides additional and ample toilet facilities when they are most required in a room which is a comfortable men's smoking lounge at other times.

The vanity room with a softly-lighted interior has three vanity tables arranged in semi-circular fashion, allowing three ladies to primp at the same time with ease and comfort. When the table tops of the vanities are lifted three individual wash basins appear. These automatically

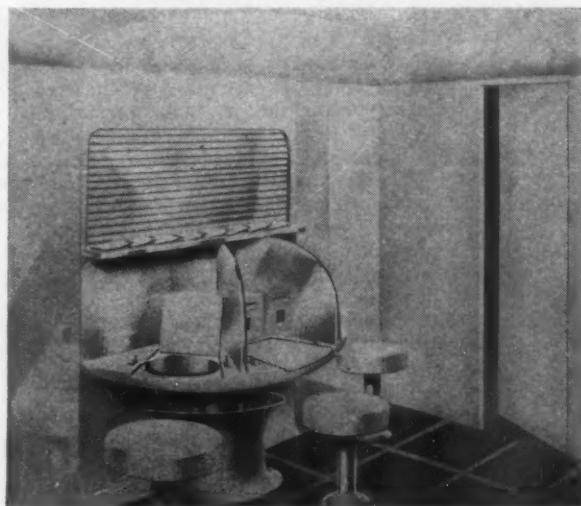
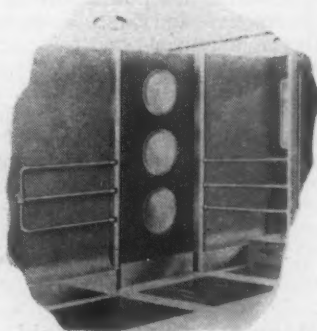
drain as the lids are closed down again. Tissue and soap dispensers are located at each table and each has wing mirrors. Underneath the vanity is a waste receptacle for the disposal of towels and tissues. All plumbing is concealed and completely sanitized. Corners are covered for easier cleaning.

Window Drapes and Lighting

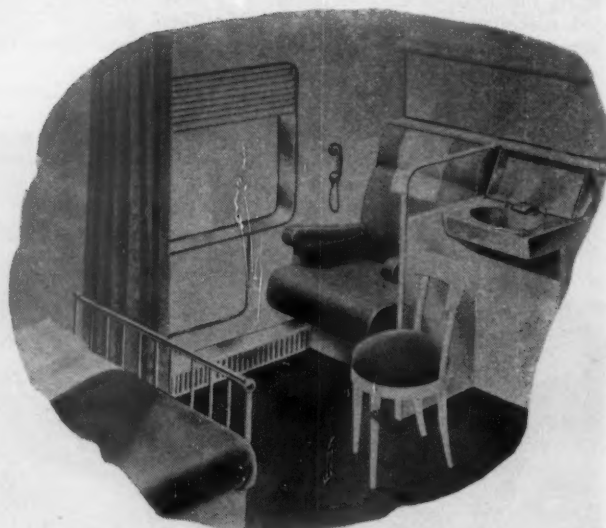
Functional drapes and "dayflector" windows are unique in their arrangement. In the upper third of the window, between the inner and outer glass, curved, highly polished stainless steel slats are inserted. These have the purpose of catching the daylight and relaying it to the underside of the baggage rack, making the latter a diffusing reflector for indirect light. The functional drapes work on a curtain track and each covers half a window so that it is possible for two passengers seated at one window to suit their own individual tastes, excluding the light or not, as they choose.

Low level boarding of the car is made easier by carefully-designed shallow steps and handrails. Passage through the vestibule has been safeguarded by swinging handrails that latch into position longitudinally of the car at each side of the door or against the coach body wall when passengers are leaving

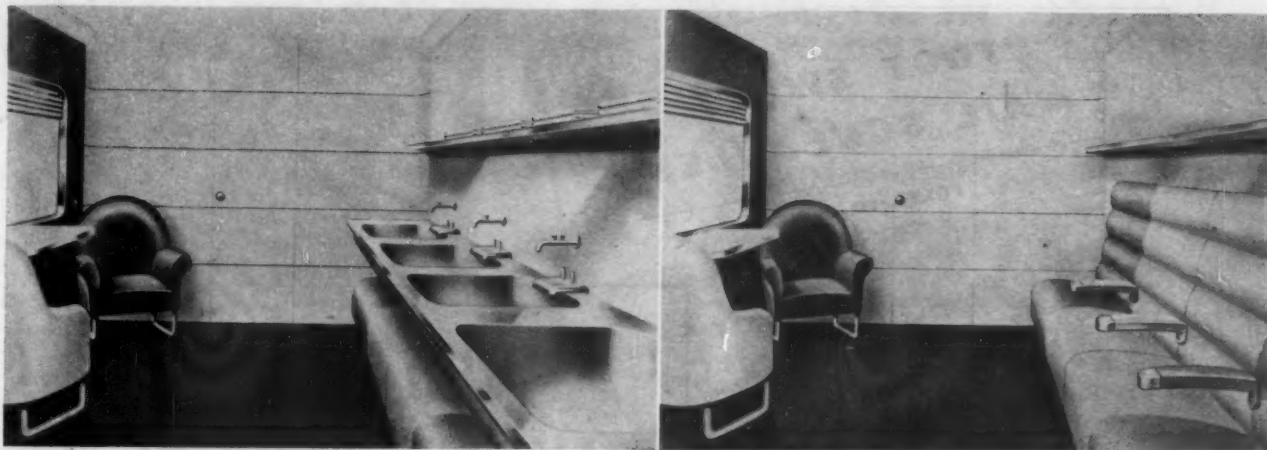
Full-vision Doors Operate Automatically — Handrails Aid Passengers in Boarding and Moving from Car to Car



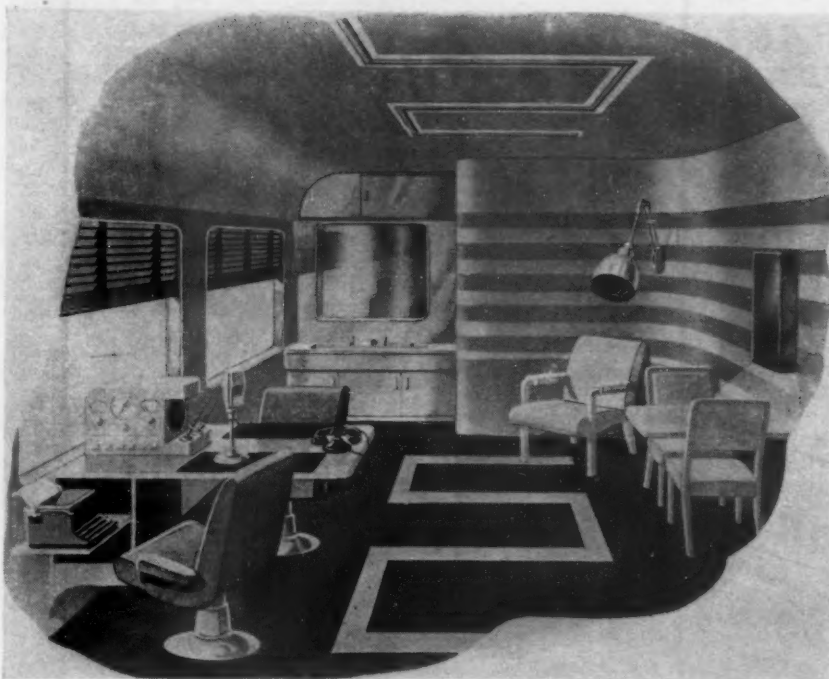
Individual Vanity Tables for Women Passengers Are an Attractive Innovation—Wash Basins Are Uncovered Only When the Table Tops Are Raised



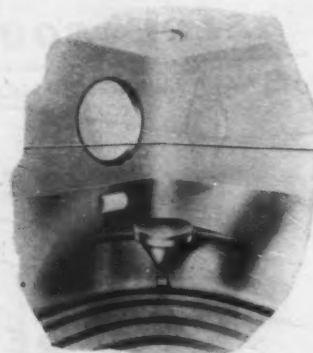
Traveling with a Child Is Made More Pleasant by the Furnishings in the "Juniorroom"—The Child's Bed Can Be Converted Readily into a Double Seat



For Early-Morning Use the Men's Lounge Has Four Wash Basins Which Later Are Hidden Behind the Back of a Four-Place Couch to Convert the Room into a Comfortable Smoking Section—This Maximum Use of a Limited Floor Area by the Designers Does Not Sacrifice Either Utility or Attractiveness



The Service Car Allows Passengers to Make Good Use of Travel Time—Beauty Care, Barber Shop Attention and Stenographic Help Can Be Arranged for with the Steward



All Toilet Plumbing Is Concealed and the Rooms Are Designed to Be Easily Cleaned by Car Attendants

view throughout the car. A small ante-room serves as a cocktail corner while passengers are waiting for seating at a table.

A "Junioroom," intended to accommodate a mother and child, is equipped with a folding cot which has a railing for the protection of a resting or sleeping child. The rail may be folded back and the cot converted into a seat for two adults. A vanity converts easily into a wash basin with a mirror. A folding table, chair and telephone complete the furnishings.

A service car with a beauty salon, barber, telephone, and stenographic service available is intended for inclusion in a passenger train.

A rear-end observation-lounge car has wide-visibility windows, and individual and movable arm chairs arranged on platforms which are raised slightly above the center aisle and separated from the aisle by a handrail to aid passengers in moving towards the semi-circular bay at the car end. Horizontal flanges on the exterior around the wide windows, although an integral part of the car structure, give a rich decorative effect and serve to deflect the light and to diffuse it without glare into the car.

or boarding the car. Each handrail has three bars in varying heights, for children and grown-ups to reach according to their stature. The doors between cars are mechanically operated and by means of three round windows give full-length vision into the vestibules. Curving side walls of the ladies' and men's rooms at the car ends do away with sharp angles and allow greater facility of movement through passageway and between cars.

A new type of baggage rack, which is a structural part of the car body, has sanitary covers for easy cleaning. It has an unbroken bottom section from the car walk to its edge and serves as a daylight reflector in connection with the stainless

steel window slats. Luggage lockers are made more readily accessible through the condensed arrangement of the men's and women's washrooms which has eliminated long passageways and permits unloading of luggage to be greatly expedited.

Other Car Types

Other new car designs include a diner which features a semi-circular snack bar which has mirror shelves on which food may be displayed. The diner is divided into sections by glass bulkheads that give the impression of a succession of rooms but allow a clear unobstructed

"TOOT SWEET" MAIL SCHEDULES

21

PORTS TO PARIS

INCOMING MAIL

LE HAVRE PARIS	ROUEN PARIS	CHERBOURG PARIS
18 30	20 30	23 45
19 30	21 30	24 45
20 30	22 30	25 45
21 30	23 30	26 45
22 30	24 30	27 45
23 30	25 30	28 45
24 30	26 30	29 45
25 30	27 30	30 45
26 30	28 30	31 45
27 30	29 30	32 45
28 30	30 30	33 45
29 30	31 30	34 45
30 30	32 30	35 45

OUTGOING MAIL

CHERBOURG PARIS	ROUEN PARIS	LE HAVRE PARIS
18 30	20 30	23 45
19 30	21 30	24 45
20 30	22 30	25 45
21 30	23 30	26 45
22 30	24 30	27 45
23 30	25 30	28 45
24 30	26 30	29 45
25 30	27 30	30 45
26 30	28 30	31 45
27 30	29 30	32 45
28 30	30 30	33 45
29 30	31 30	34 45
30 30	32 30	35 45

22

PARIS - CHARLEROI - ANTWERP
"TOOT SWEET" CONNECTIONS AT PARIS (Table 20)

PARIS	CHARLEROI	ANTWERP
10 30	6 11 45	12 45
12 45	8 26	14 45

BELGE - SOUTHEAST

14 AACHEN - LUXEMBOURG - NANCY

EAST REGION

7 PARIS - REIMS - CHARLEVILLE - LONGUYON - LUXEMBOURG

WEST REGION

15 PARIS - MONTELOIER-BUCHY - ROUEN - LE HAVRE

READ DOWN	101 EXPRESS	117 EXPRESS
22 54	25 17 18	25 17 18

NORTH REGION

1 PARIS - AMIENS - BOULOGNE - CALAIS

PARIS		WILLES		PARIS-Nord		BOULOGNE-VEILLE		BOULOGNE TINTILLERIES		BOULOGNE CALAIS		TOURCOING - BRUX	
READ DOWN		1	11										
		EXPRESS	EXPRESS										
7 25	10 40	32	0	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
9 39	12 54	79	32	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
10 24	14 15	110	79	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
10 27	15 16	150	110	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
12 14	16 15	181	150	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
13 5	18 15	211	181	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
15 10	20 15	241	211	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
17 15	22 15	271	241	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
19 20	24 15	301	271	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
21 25	26 15	331	301	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
23 30	28 15	361	331	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
25 35	30 15	391	361	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
27 40	32 15	421	391	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
29 45	34 15	451	421	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
31 50	36 15	481	451	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
33 55	38 15	511	481	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
35 00	40 15	541	511	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
37 05	42 15	571	541	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
39 10	44 15	601	571	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
41 15	46 15	631	601	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
43 20	48 15	661	631	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
45 25	50 15	691	661	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
47 30	52 15	721	691	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
49 35	54 15	751	721	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
51 40	56 15	781	751	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
53 45	58 15	811	781	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
55 50	60 15	841	811	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
57 55	62 15	871	841	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
59 00	64 15	901	871	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
61 05	66 15	931	901	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
63 10	68 15	961	931	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
65 15	70 15	991	961	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
67 20	72 15	1021	991	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
69 25	74 15	1051	1021	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
71 30	76 15	1081	1051	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
73 35	78 15	1111	1081	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
75 40	80 15	1141	1111	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
77 45	82 15	1171	1141	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
79 50	84 15	1201	1171	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
81 55	86 15	1231	1201	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
84 00	88 15	1261	1231	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
86 05	90 15	1291	1261	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
88 10	92 15	1321	1291	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
90 15	94 15	1351	1321	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
92 20	96 15	1381	1351	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
94 25	98 15	1411	1381	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
96 30	100 15	1441	1411	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
98 35	102 15	1471	1441	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
100 40	104 15	1501	1471	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
102 45	106 15	1531	1501	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
104 50	108 15	1561	1531	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
106 55	110 15	1591	1561	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
109 00	112 15	1621	1591	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
111 05	114 15	1651	1621	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
113 10	116 15	1681	1651	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
115 15	118 15	1711	1681	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
117 20	120 15	1741	1711	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
119 25	122 15	1771	1741	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
121 30	124 15	1801	1771	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
123 35	126 15	1831	1801	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
125 40	128 15	1861	1831	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
127 45	130 15	1891	1861	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
129 50	132 15	1921	1891	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
131 55	134 15	1951	1921	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
134 00	136 15	1981	1951	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
136 05	138 15	2011	1981	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
138 10	140 15	2041	2011	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
140 15	142 15	2071	2041	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
142 20	144 15	2101	2071	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
144 25	146 15	2131	2101	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
146 30	148 15	2161	2131	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
148 35	150 15	2191	2161	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
150 40	152 15	2221	2191	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
152 45	154 15	2251	2221	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
154 50	156 15	2281	2251	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
156 55	158 15	2311	2281	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
159 00	160 15	2341	2311	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
161 05	162 15	2371	2341	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
163 10	164 15	2401	2371	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
165 15	166 15	2431	2401	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
167 20	168 15	2461	2431	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
169 25	170 15	2491	2461	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
171 30	172 15	2521	2491	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
173 35	174 15	2551	2521	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
175 40	176 15	2581	2551	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
177 45	178 15	2611	2581	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
179 50	180 15	2641	2611	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
181 55	182 15	2671	2641	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
184 00	184 15	2701	2671	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
186 05	186 15	2731	2701	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
188 10	188 15	2761	2731	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
190 15	190 15	2791	2761	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
192 20	192 15	2821	2791	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
194 25	194 15	2851	2821	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
196 30	196 15	2881	2851	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
198 35	198 15	2911	2881	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
200 40	200 15	2941	2911	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
202 45	202 15	2971	2941	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
204 50	204 15	3001	2971	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
206 55	206 15	3031	3001	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
209 00	208 15	3061	3031	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
211 05	210 15	3091	3061	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
213 10	212 15	3121	3091	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
215 15	214 15	3151	3121	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
217 20	216 15	3181	3151	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
219 25	218 15	3211	3181	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
221 30	220 15	3241	3211	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
223 35	222 15	3271	3241	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
225 40	224 15	3301	3271	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
227 45	226 15	3331	3301	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
229 50	228 15	3361	3331	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
231 55	230 15	3391	3361	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
234 00	232 15	3421	3391	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
236 05	234 15	3451	3421	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
238 10	236 15	3481	3451	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
240 15	238 15	3511	3481	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
242 20	240 15	3541	3511	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
244 25	242 15	3571	3541	Lv	Ar	1	1	Ar	1	Ar	1	Ar	1
246 30	244 15	3601	3571	Lv	Ar	1</							

One Day's Work of M. R. S. in Europe

Moves 529,275 tons in 1,219 trains, producing 76 million net ton-miles—Covers 25,120 route-miles or seven times total originally planned for

By BRIG. GEN. CARL R. GRAY, JR.

Director General, Military Railway Service

THE following article is the text of an official report transmitted from Brigadier General Gray to Major General Frank S. Ross, chief of transportation in the European Theater of Operations.

1. For the 24-hour period beginning 0001 hours on 7 June, 1945, and ending at 2359 hours that date, the Military Railway Service, Etoussa (European Theater of Operations, U. S. Army), handled a total of 1,219 trains and 47,614 cars (loads and empties), for a net military tonnage handled of 529,275 tons, or 22,053 tons handled each hour of the 24. Our military trains are averaging about six miles per hour. In 24 hours then, a car in any one of those trains would move on an average 144 miles and the tons in those cars, on an average, would move 144 miles. Therefore, for the 529,275 net tons handled, we had a net ton-mileage for the day of 76,215,456. The Comzone Sitrep (Communications Zone Situation Report) for 8 June, 1945, shows that the net tonnage handled was 93,798 for a net ton-mileage of 16,452,398. The difference in these two calculations is that the Sitrep statistics cover only tonnage originating that day.

2. June 7 was chosen as a test day because a statement was made as of that day that tonnage was not being handled in accordance with the capacity of the railroad. These statistics are taken from the train sheets of the railway operating battalions and are factual on the basis of that accurate recording. They do not include civilian trains, either freight or passenger, and they do not include civilian trains on which military freight might be moving, but are only symbolized M. R. S. trains handled by the Military Railway Service and by the S. N. C. F. (French Railways) in all phases of operation. It is interesting to note that the division as between the 1st and 2nd Military Railway Service is as follows:

	1st M. R. S.	2nd M. R. S.	Total
Trains	537	682	1,219
Cars	21,832	25,782	47,614
Net Tons	207,174	322,100	529,274

3. The railway operating battalion that handled the most tons was the 718th which has its headquarters at Mainz and is commanded by Lt. Colonel Robert A. Wright, and operates between Gau Algesheim and Hanau over the Mainz bridge. This unit is sponsored by the Big Four Railroad. The record

for that particular day produces the astounding statistics as follows:

	Eastbound	Westbound	Total
Trains	71	51	122
Loads	3,776	1,020	4,796
Empties	215	417	632
Net Tons	37,712	22,617	60,329

4. In carrying out this remarkable achievement they handled for the 24 hours ending at 1800 hours on 7 June 1945, over the Mainz river single-track bridge the following:

	Eastbound	Westbound	Total
Trains	25	22	47
Loads	1,067	703	1,770
Empties	0	238	238
Net Tons	13,960	7,584	21,544

5. This is not a maximum day over the Mainz bridge which was June 25 when we handled the following:

	Eastbound	Westbound	Total
Trains	34	27	61
Loads	1,286	672	1,958
Empties	50	603	653
Net Tons	19,177	7,619	26,796

6. The railway grand division which handled the most tons was the 710th with headquarters at Brussels, commanded by Colonel O. D. Crill and sponsored by the Santa Fe Railway. The railway operating battalions under its jurisdiction are the 734th, 740th, 741st, 744th and 752nd and it operates trains in the general Belgium area out of the great port of Antwerp.

7. On this particular day the loadings reported indicate that 1,805 cars were loaded at the main ports while the depot loadings were 5,143 cars, producing a total of 6,948 cars loaded for the day which indicates that 26 per cent of the cars loaded were loaded at ports and 74 per cent at depots and dumps. On that day, the American government had in service 1,937 locomotives and 34,588 freight cars.

8. The highest number of trains run any one day from the ports was on March 29 when 123 trains containing 4,176 cars with 57,470 net tons were forwarded. Distances are great. Marseille to Munich through Mainz is 975 miles, Cherbourg to Magdeburg via Wesel 900 miles, and Antwerp through Wesel to Salzburg 950 miles.

9. As of that date, the Military Railway Service consisted of 74 units and had a total Military Railway Service personnel of 1,147 officers, 45 warrant officers and 25,490 enlisted men for an aggregate of 26,882 officers and men. As of May 1, 1945, there was an aggregate

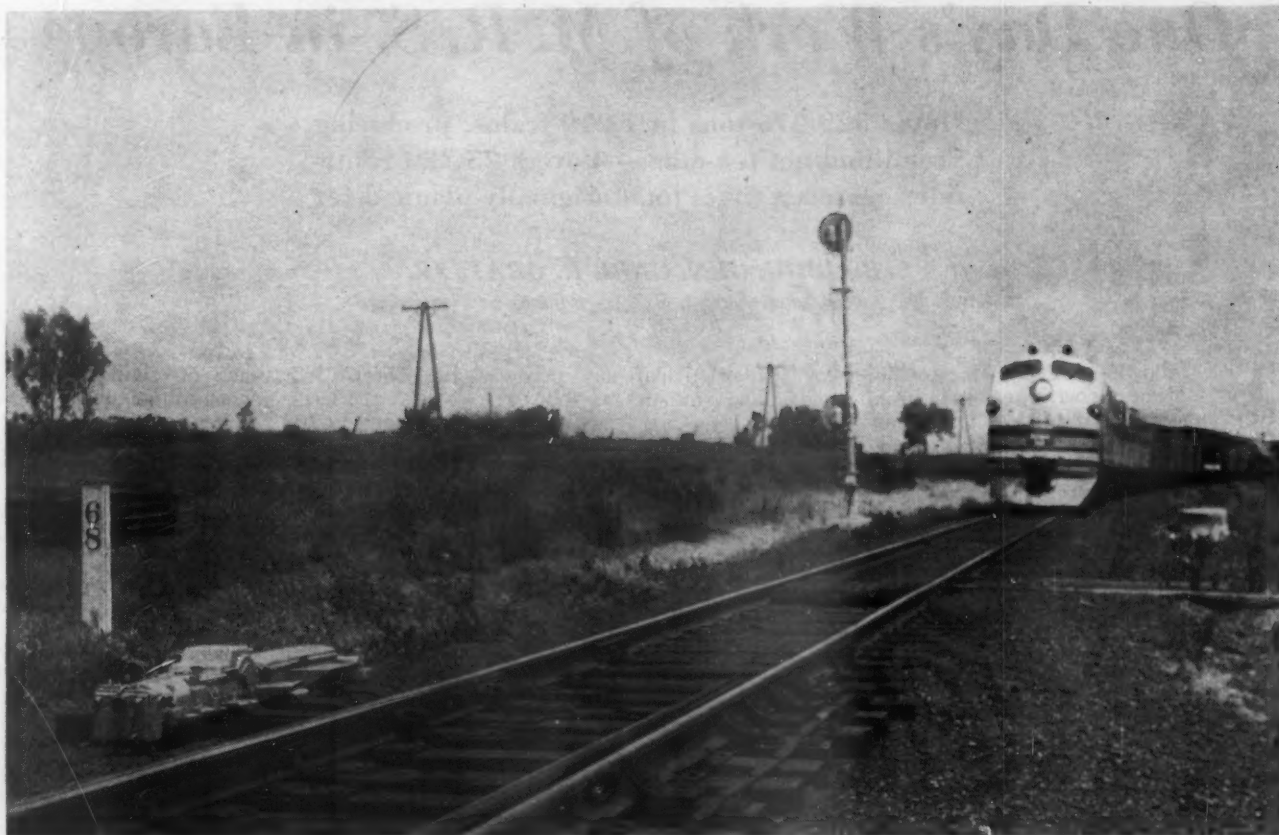
of 78,362 years of civilian railroad experience among those men or an average of 3.06 years per man. Added to the Military Railway Service total strength must be included 226 officers, four warrant officers and 5,632 enlisted men for an aggregate of 5,862 officers and men of the Military Police battalions doing security duty as train and static guards. This produces a total strength under the Director General of 1,373 officers, 49 warrant officers, and 31,122 enlisted men, or an aggregate of 32,544. These 74 units totaling this force are as follows:

- 1—General Headquarters, Military Railway Service
- 2—Headquarters, Military Railway Service
- 7—Railway Grand Divisions
- 24—Railway Operating Battalions
- 8—Railway Shop Battalions
- 1—Separate Transportation Company
- 2—Base Depot Companies
- 14—Military Police Battalions
- 5—Railway Workshops
- 10—Hospital Train Maintenance Sections
- 74—Units

10. For meritorious deeds or deeds of extraordinary service, there have been 809 citations issued to the officers and men of the Military Railway Service of which 55 were unit commendations.

11. When the Military Railway Service was organized and planned for, it was anticipated that each Railway Operating Battalion would operate up to a maximum of 150 miles and run a maximum of 24 trains in each direction. For the 24 operating battalions we have this would amount to a total of 1,152 trains over a 150-mile stretch. On the basis of the maximum anticipated mileage of 150 miles per battalion, this would produce 3,600 miles thought capable of being operated by these battalions. Instead of that, we operated over 25,120 miles so that we operated approximately seven times as many miles as anticipated; and instead of the estimated maximum of 1,152 trains, we actually operated on this particular day, and this was not the greatest day, 1,219 trains over the 25,120 miles of track.

12. It would appear that the Military Railway Service Division of the Transportation Corps does "furnish the necessary transportation."



Westbound Freight Train at East End of Denton

C. T. C. on a Complete Subdivision

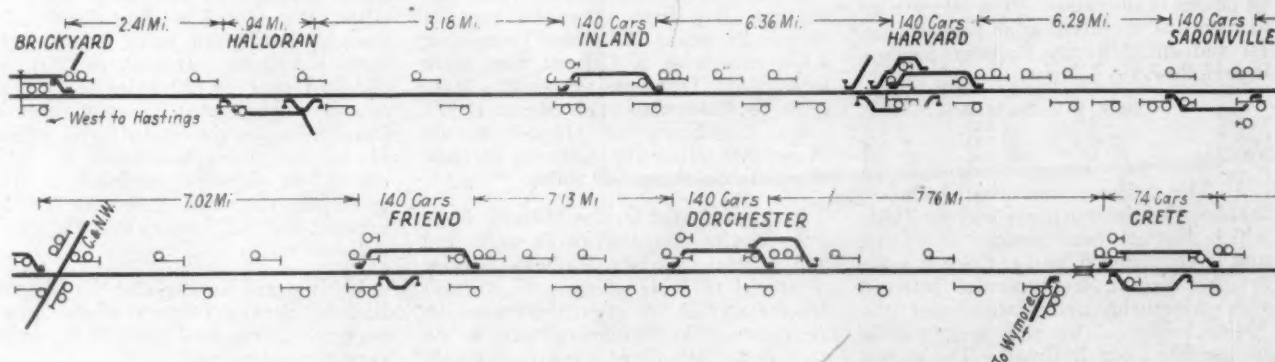
A 100-mile project on the Burlington between Lincoln, Neb., and Hastings is part of the Chicago-Denver route

THE Chicago, Burlington & Quincy has recently completed the installation of centralized traffic control on an entire subdivision 100 miles long between Lincoln, Neb., and Hastings. Lincoln is an important hub where several Burlington lines converge, as, for example, from Chicago, St. Louis and Kansas City on the east, as well as from Billings, Cheyenne and Denver on the west. With the exception of three short

sections of single track, one of which is under C. T. C. control, the Burlington has two or more main tracks westward from Chicago to Lincoln, 551 miles. At Lincoln the freight classification

yards, which are equipped with car retarders, are located west of the station, the west end of this yard being known as Cushman, from which point a single track line extends 3.8 miles to connect with the Lincoln-Denver main line at Cobb, which is 7.2 miles west of the passenger station at Lincoln. The eastbound freight trains leave the main line at Cobb, and the westbound freight trains enter the main line at Cobb;

By W. F. ZANE
Signal Engineer
Chicago, Burlington & Quincy



whereas the passenger trains use the main track between the Lincoln station and Cobb. For westbound trains the C. T. C. starts on the main track at the west limits of the interlocking at the station, and on the freight yard connection the C. T. C. starts at Cushman.

The C. T. C. includes the power switch at the junction at Cobb and a junction switch with a branch just west of Crete, as well as both ends of 12 sidings between Lincoln and Hastings. These power switches and semi-automatic signals at these switches are controlled by a new C. T. C. control machine located in the dispatcher's office at Lincoln. At Halloran, the first station east of Hastings, there is a 91-car siding, the switches of which are operated by hand-throw stands, but C. T. C. controlled signals are furnished to direct train movements.

At Hastings double track extends through the yard and station layout, C. T. C. controlled from an interlocking tower at Hastings being in service to control train movements in both directions on both tracks. The east end of this double track is known as Brickyard, at which point the C. T. C. controlled from Hastings connects with the new C. T. C. extending from Brickyard to Lincoln.

Between Lincoln and Hastings the railroad crosses rolling prairie country. The grades are light, being in general less than 0.5 per cent. Starting just west of Denton there is a 0.4 per cent grade ascending westward for about 1 mile, followed by 0.6 per cent for 5 miles to the east end of Berk. This is the longest and steepest grade on the subdivision.

Of the 12 power-operated sidings, nine have a capacity for a train with 140 cars, based on 48 ft. to the car, and allowing for a Diesel-electric locomotive as well as a caboose. The siding at Sutton will hold a train of 113 cars and the siding at Crete 74 cars. Halloran, the first station east of Hastings, has a capacity of 91 cars. Hand-throw switches are in service at this siding but C. T. C. controlled signals were provided to direct train movements. In general, the sidings are so spaced that the distance from the west switch of one siding to the east switch of the next will range from about 6 miles to 7.7 miles, except that the distance between Fairmont and Grafton is 4.4 miles, and be-



Typical Dual-Control Power Switch

tween Sutton and Saronville, 2.7 miles.

In the years 1925 to 1927 automatic block signaling was installed on this subdivision. When changing over to C. T. C., new searchlight type signals were installed in the conventional arrangement at each power switch location. The intermediate automatic block signals, which were previously in service, were relocated as required to space following trains as well as to serve as approach signals for station-entering C. T. C. signals. Where the distance between sidings is 6 miles or more there are two double locations of intermediate signals. Where the distance is about 4 miles, as between Fairmont and Grafton, there is only one double location of intermediates. Between Berk and Crete, where the distance is 2.2 miles, there are no intermediate signals.

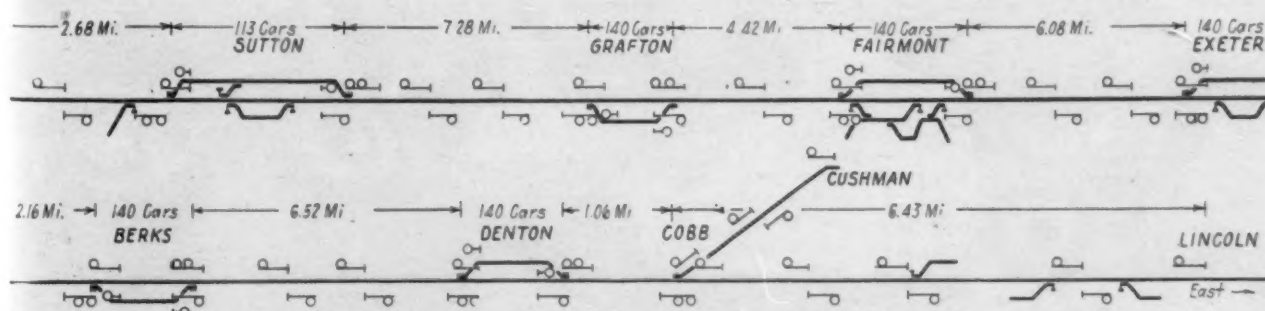
C.T.C. Control Machine

The C. T. C. control machine in the dispatcher's office at Lincoln has a central panel 5 ft. long and a wing panel at each side 2 ft. long, as shown in an accompanying illustration. A diagram across the top of the panels shows the track layout of the entire subdivision, giving the distance between sidings, the car capacities of the sidings and other pertinent data for the information of the dispatcher. Below this diagram is a conventional illuminated track diagram showing the controlled switches and signals. On this diagram there is a track-occupancy lamp to repeat occu-

pancy of each section of main track between sidings, for each OS track circuit at a power switch, and for each section of main track between OS track circuits through stations.

The switch levers normally stand in the normal position, and there is an opal lamp above each lever which is lighted when the corresponding switch in the field is in the normal position. A switch lever is thrown to the right to the reverse position, and, when the corresponding switch is over and locked in the reverse position, a red lamp near the end of the lever is lighted. The signal levers normally stand vertical to control the signal or signals to the Stop aspect, as is indicated by a red lamp above the lever. A signal lever is thrown to the left to control a westward signal or to the right to control an eastward signal. When the corresponding signal clears, a green lamp near the end of the lever is lighted.

The electric train recorder, located in the center of the desk portion of the machine, has two styli to corresponding with each of the OS sections in the field. One stylus is operated when a signal at the corresponding field location is cleared, and the second stylus is operated when the OS section is occupied. Thus the record on the chart shows how long the signal was clear before the train arrived. The lack of a continuous signal-clear indication, with an OS track-occupancy recorded, shows that the train has passed a red signal. Also on this electric automatic



Track and Signal Plan of the New Centralized Traffic Control Territory Between Lincoln and Hastings

train recorder is an OS stylus corresponding with each location in the field at which a train can enter C. T. C. territory; at Lincoln, at Cushman, at Crete and at Brickyard in Hastings.

The C. T. C. line coding equipment on this project is the General Railway Signal Company's two-wire Type-K Class-M system, which operates on two wires extending from the control machine at Lincoln to the west end of the project. The relays of this line coding system are of the plug-in type, being mounted in cases, and these cases also are equipped with plug-in connectors, which fit into plug-in boards which are wired into the houses. These cases are mounted on brackets, which are fastened to the walls of the concrete houses. In case of improper operation of code relays, an entire case can be replaced quickly, and the case can be taken to a shop for further checking and to replace individual plug-in relays, if necessary.

Pole Line Work

The track circuits, line circuits, coding equipment, electric switch machines, etc., are operated from storage batteries on floating charge from rectifiers which are fed from a 220-volt a-c. power distribution line on two No. 6-WP copper wires on a crossarm. The signal lamps are normally fed from a transformer but are transferred to feed from battery in case of an a-c. power outage.

The C. T. C. line code circuit is in a two-conductor No. 10 special standard Burlington code cable of low capacity and known as an Okocentral C. T. C. aerial cable. The local signal line control circuits are in a No. 16 aerial cable of the required number of conductors. Using one 4,000 or 6,000 lb. stranded galvanized-iron messenger, the signal

line circuit cable is supported in short rings and the C. T. C. code cable in long rings, the short and long rings being alternate. The drops from the line poles to the instrument houses are the same type of cable used on the line.

Placing C. T. C. in Service

In placing the project in service the Burlington standard method was used, which has the advantage of allowing the dispatcher as well as enginemen to learn the system gradually, and also the construction, testing and placing in service is done with a minimum of interference with train operations.

The program is that the power switch machines and new C. T. C. controlled signals at these switches are installed for one siding and the intermediate signals up to that siding are rearranged as required. Effective as of a certain date, these power switches and C. T. C. signals are placed in service, each switch and its surrounding signals being bulletined in service as a remotely controlled interlocking, controlled by the dispatcher from his new control machine.

At this time, however, the regular interlocking rules apply, time tables and train orders being in effect.

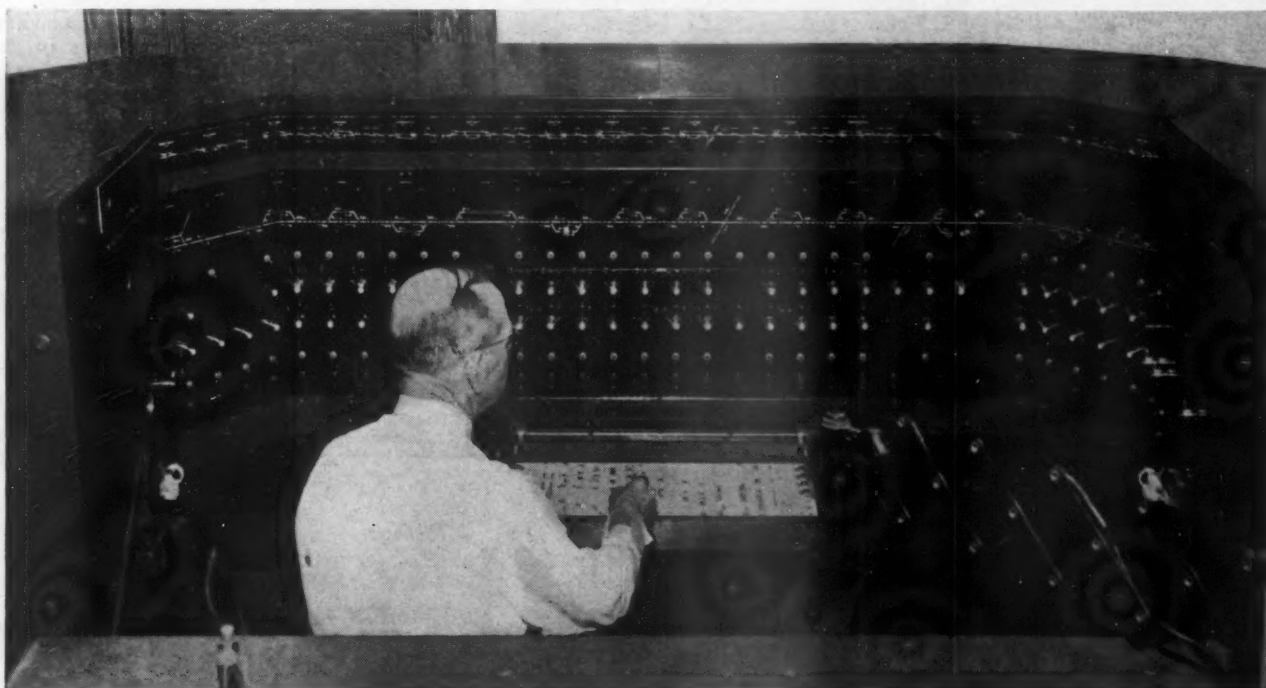
The construction was started at Lincoln and progressed westward. As an example of the program, the rearrangement of automatic signals between Crete and Dorchester, as well as the power switches and surrounding semi-automatic signals at both ends of the siding at Dorchester, were completed and placed in service as remote control interlocking on November 17, 1944. The next step included from the west end of Dorchester to the west end of Exeter was placed in service as remote control

on December 5. The next, from the west end of Exeter to the west end of Fairmont, was ready for service on December 15. These three steps from the west end of Crete to the west end of Fairmont included an overall section between two offices where operators were regularly on duty to issue train orders. Therefore, this section as a whole could be placed in service as C. T. C. by bulletin as a unit, requiring no physical field cut over work, this being done on December 15. In this manner, and working on westward, each siding was placed in service as remote control and then several sidings as a group were placed in as centralized traffic control, the final section between Inland and Hastings being placed in service on February 20, 1945.

By this procedure the dispatcher started with one short section and learned to operate each additional siding a step at a time, so that he took over the controls gradually. This, of course, is much more practical than having a man take over, at one jump, the control of C. T. C. on an extensive territory such as a subdivision.

With this program the signal construction forces can complete their work and make their final tests at each switch layout just before it is placed in service, as remote control, and there is no occasion to call these men back to such locations when changing over to C. T. C. On any given "in service" day the signal forces can be concentrated at the two switches of a siding instead of attempting to distribute men at all the switches on an extended territory.

This centralized traffic control was planned and installed by Burlington forces, the major items of signal materials being furnished by the General Railway Signal Company.



One Machine at Lincoln Controls the Entire Subdivision

Toward a More Useful Accounting Dept.

Accounts need "tailoring" to needs of management, and useful information should not be denied because its production costs money—Department has four separate functions, and maximizing its usefulness requires appreciation of the special contribution of each job to successful operation

By J. F. BLAIR

*Auditor of Expenditures, C. B. & Q., and
President, Chicago Chapter, Institute
of Internal Auditors*

IN this time of planning, one of the first things needed to be done is to review the "Responsibility Chart" of the company. For of what use is planning for better transportation facilities if the responsibilities of the line and staff organization—the human facilities—are not so assigned as to insure full production at the lowest possible cost?

Top management rests on a stool of many legs which symbolize the many departments of a railroad, and administrators can concentrate freely on the future only when they are certain that the organization of those departments is so fixed as to insure adequate support. The support required is efficient day-by-day operation of the property and full compliance with the spirit of established policies. The accounting department has a duty to perform in this assignment.

The traffic department secures the business, the operating department produces the service, and the accounting department records the business transactions. If the accounting department is adequately staffed, it presents currently a complete analysis of the cost of operation and of trends disclosed. This latter information aids management in the formation of policies, that should realize profits for the company from the opportunities foreseen when the future was studied. Data as to cost of operation furnishes a check on the efficiency of current performance. The question is whether or not greater use of the accounting department's records and trained personnel will assist in reduction of costs.

Undeveloped Resources

It is the purpose to here examine the nature of the work performed in the accounting department and to suggest advantages to be derived from utilization of its undeveloped resources. It is believed that if full use were made of its facilities, greater assistance would be forthcoming in meeting the problems of the future. This article is not, however, written in an attempt to secure a larger place in the organizational sun for the accounting department but to suggest that profits will be curtailed if we fail to use that which can be made available.

Close examination of the actual functions performed in the accounting department will reveal that accounting is only one of its duties. Accounting,

auditing, statistics and production management are the four major business functions of the department. Each is a separate and distinct job and there is a set of "rules of the game" for each, which must be understood by those who carry out these duties. An accountant isn't necessarily an auditor, nor is an auditor necessarily an accountant. A statistician need be neither. A production manager must understand costs and how they are determined, but his greatest understanding and study must be of methods and procedures.

An accountant is one who understands the methods and principles employed in the recording of the dollar value of all business transactions. The bookkeeper actually makes the record. Equipped by training and education, the accountant must be able to devise and install systems of accounts which will reveal to management the facts it wishes to know about the business.

Systems of accounts should be tailored to fit the property and the opportunity for a dynamic system is sacrificed when a uniform account classification is adopted by an industry. The sole purpose behind the classification of accounts of any one business is to disclose to management the sources of revenues, the nature of expenses, and the cost of specific jobs. An expense which may be considered in the operation of one property may be of negligible importance on another. A uniform classification calls for the uniform segregation of such expenses. A tailor-made classification, one custom built to the needs and personalities of the management, is the most effective classification of accounts.

Uniformity a Handicap

The question as to what changes might be made in the existing uniform classification may arise at this point. Of course, to suggest specific changes would be to refute the statement that accounting classifications must be tailor-made to fit a particular property. It goes without saying that any classification of accounts should be built in such a way as to bring about observance of fundamental accounting principles,

such as distinguishing between capital and operating charges. However, around this framework should be built a classification which will serve best the managers of the property.

The employment of a uniform system of accounts has limited the usefulness of the accounting records for managerial purposes. On a railroad it is the accountant's job to find ways in which to produce desired results by bending the existing classification to fit the needs of management.

Certainly if a business continues to be successful, it will be because plans for the future have been based on past facts. The history of the present, as disclosed by the accounts, is the best guide for the relatively current activities of management. The past history, with its disclosures of trends, shows the way to the more distant future. Information required by management from the accounts must be readily available. It is not sufficient for such purposes that the revenue earned or expenses incurred in a given period be disclosed weeks or months after the event takes place. If it is intended that management shall control the business through performance records, such records must be available promptly. A classification fitted to the needs of the managers would facilitate the prompt rendition of operating statements. Too often, however, savings that could be obtained through the use of such information are sacrificed to obtain reduced costs in the operation of the accounting department.

Costly But Not Expensive

To be of value cost figures must be made available to management on a current basis. If management is not receiving such information in time to use it in the current operation of the business, it is because the decision has been made that the cost of gathering the data exceeds the value of the information. Ways and means have been, and can be, devised to furnish any information desired by management, within a reasonable period, at a price. A tool is not costly if it will aid the operator to do a job which will produce more net income than he could produce without the tool.

We foresee strong competition among the transportation agencies of this country and we know that one of the weapons that must be used in this fight is low costs. We also know that adequate

records of costs must be maintained and analyzed if we are to operate economically. It is necessary, therefore, that planners for the future carefully examine the present product of the department and indicate that which would be more desirable so that the accountant may build an account classification which will adequately serve management, within the bounds of the present uniform system of accounts. It seems useless to assume that the present Interstate Commerce Commission classification can be prescribed. However, it is not suggested that the I. C. C. be deprived of information necessary for regulatory purposes.

The second phase of the accounting department work is termed Auditing. In the minds of many the terms accounting and auditing mean the same thing. The words are, however, not synonymous. Some confuse the internal checks and controls, established by the accountant and which are an inherent part of the accounting system, with auditing. The truth is that auditing is a separate and distinct function which can be expanded to the benefit of most companies.

The auditor's present assignment includes the protection of the moneys and property of the company through careful examination of all accounts and records, and by periodic inventory of cash and property that has been placed under the control of individual employees. The verification of the accuracy and honesty with which the documents and records have been prepared is for the purpose of insuring that the information furnished to management is in accord with the facts. This includes the ascertainment that the principles underlying the system by which data is gathered are correct so management may rely on the results as displayed by the accounts. Tyron Edwards said: "Accuracy is the twin brother of honesty." It is the auditor's job to ascertain that both accuracy and honesty are maintained.

These audits are made for the purpose of disclosing to management conditions that exist so far as financial matters are concerned. To limit audits to the financial side of the business is to overlook the advantages that accrue from audits of all of the tools of management. The work of the auditors of any company should include the examination of all aspects of the business. A staff of internal auditors not responsible to any one department should be assigned to the task of examining the effectiveness of the tools of management and of reporting those which are becoming dull through misuse, or which should be replaced for the reason that better results could be obtained from more modern tools.

The Tools of Management

Managerial control is maintained through the use of certain instruments which have been devised for that purpose. Some of these should be considered here so there will be no mis-

understanding of the part the auditor should take in the overall effort to control costs. The recognized tools employed in the scientific management of any property include:

1. *Organization*—When the organizational lines of a company are laid out, it is intended that total work of the company will be divided into specific assignments for the purpose of securing efficient operation. The established organization is one of the mediums through which management expects to control costs. It should be the internal auditor's task to appraise the effectiveness of the division of work and to ascertain that the organizational lines are kept open to the top. Busy executives must employ the "management by exception" principle but they must also know that all important exceptions come to their attention.

2. *Policies*—These "rules of the game," as management intends it shall be played, are of primary importance to the success of a business. Policies are statements of principles which are intended to guide those responsible for operating the property. The fact that policies, as promulgated by top management, are often misconstrued or disregarded in "running the railroad," justifies the assertion that an audit should be made of the effectiveness of the policies all down the line. The auditor should also ascertain that departmental policies are in harmony with the overall policies of top management.

3. *Personnel*—Audits of personnel should be undertaken for the purpose of disclosing weaknesses of individuals which may be improved by a training program designed for that purpose and for bringing to the light, men qualified for further promotion.

4. *Budgets*—Where a budget has been adopted as a means for controlling expenses, faulty practices creep in which make it imperative to examine the basis of estimates and the results.

5. *Standards*—This tool, if adopted by management, has the effect of curtailing expenses. Frederick W. Taylor said many years ago that one of management's jobs is to plan the work but that, if the worker is permitted to plan the work and decide how much should be done, the worker is running the business. Where standards are used, they are the management's yardstick for measuring the time or cost of a particular job. Their adoption is evidence that management is planning the work and, as a general thing, well established standards will have the effect of reducing costs. Even when this method of control is adopted, the operation should be reviewed to ascertain that it is functioning and to determine that new supervisors have been properly trained in the use of this tool.

6. *Research*—Even the operation and results of the research department should be reviewed or audited by an impartial observer or auditor. The effectiveness of new procedures and methods should be subject to such scrutiny, as the resistance to the adoption of new methods

by those who have no part in the designing of the improved plan makes it important that the work of the research department, as finally reflected in the other departments, be audited. The arguments for capital expenditures are based on research and some audit should be made to ascertain that results expected are actually obtained.

7. *Other Tools*—Such as accounts, cost system and statistical statements, are now, or should be, part of the financial audit as presently conducted under the direction of the accounting department.

It is not suggested that the auditing staff, as now usually constituted, is fully qualified to audit all of the tools of management. The internal auditing staff, however, should include men competent to review the uses to which the various tools are put, and to inform management of possible improvements in their use. This staff would probably include men with engineering training, if, for example, a review of the effectiveness of the research department is to be undertaken. In any event, some recognition needs to be given to the fact that operational leaks may be as costly as financial leaks.

To best perform this complete auditing function, an internal auditing department should be established—probably under the guidance of the chief of the accounting department for the reason that, regardless of the technical training and education required of the members of the staff, the art and philosophy of auditing is part of the equipment of the head of the accounting department. He is the one best qualified to train auditors in the performance of their work and in the preparation of reports informing management of the improvements to be secured through better use of the tools.

Performance Standards Needed

The third function performed in the accounting department is that of a statistician. Inasmuch as statistics is the science of the collection and arrangement of facts for analysis and comparison, and inasmuch as it is in the accounting department most of the reports of business transactions are received, it is obviously the duty of the department to assemble these facts for the information of those concerned.

Many so-called statistical statements are merely tabulations of averages of performance, comparing the performance of one period with another. The officer receiving such a tabulation scrutinizes the averages and, upon finding that this month's performance is a little better than the same month last year, usually feels that something has been accomplished. But of what use are such statistics when there is no yardstick against which to measure either this year's or last year's averages? Without such yardsticks or standards of performance the information on the statistical statements merely indicates how well we did in comparison with last year,

or last month, but does not show the relationship between actual performance and what should have been done.

Buried in the averages is probably the yardstick we are looking for, but we bury the excellent, the good and the fair performance with the poor performance and strike an average which is called good or bad, depending upon its relationship to a similar average of a prior period.

The analysis of actual performance and comparison with standard performance should be made in the accounting department since, if the statisticians engaged to analyze the facts and inform the responsible officers of the results of the operation are not attached to the department, they are not in a position thoroughly to understand the manner in which the facts have been gathered, the estimates that must necessarily be included in accounts for various reasons, and other intimate details underlying the final calculation.

Every statistical statement prepared should have an urgent need behind it. Unless the information furnished by the statement will aid in the reduction of the labor and material used or the definite control of expenses, the report should be classified as purely historical, and serious study should be made to determine whether the historical value justifies the expense of preparation.

Where Centralization Errs

Cost statements should be a tool for the use of the supervisor, but such information is valueless unless it is furnished in sufficient detail to permit the supervisor to use it in the control of expenses. Averages and statements of gross expenses are not adequate for this purpose. The decision to furnish those who control the expenses of the company with adequate information must carry with it the decision as to where and how the data shall be gathered and at what time it shall be furnished. Only such costs as are controllable by a supervisor should be used to measure his efforts.

The centralization of the work of gathering all such data and the preparation of cost reports in the general accounting department was an economical move so far as the payroll cost was concerned. If, however, such centralization removed "current cost data" from the tools which the division and district officers use in the operation of their part of the property, then complete centralization may have been an expensive move.

If control over expenses has been reduced, is it not possible that the apparent payroll saving may be far less than the non-apparent loss that may be eventually incurred because the operating officer is not in a position to establish accurately the relationship between work accomplished and dollars spent? Cost data are not substitute for constant observation of work in progress, but neither will the continued traveling of the division and district officers over

their territory and close supervision of first-line supervisors accurately reveal the relationship between actual costs and what the work should have cost. This information has to be displayed in carefully and accurately prepared statements which relate actual cost to standard cost and in many instances this can best be done in the division or district offices under the supervision of the central office accounting department.

The fourth function of the accounting department has been labeled "production management." Although it has been suggested in preceding paragraphs that, possibly, centralization of the preparation of cost data is expensive, there is no question that the centralization of payroll preparation, large freight station accounting, and other similar operations is economical. It has permitted the utilization of machinery that could not have been economically employed had the work remained in the division and district offices. The centralization of these major jobs in the accounting department has caused the supervisors of that department to study and adapt to such work the principles employed by production engineers in shops and factories.

Each supervisor of such production work, which is neither accounting, auditing nor statistics, must be trained in the principles underlying economical production if the most efficient method is to be used. The supervisors in the accounting departments have long been familiar with the desirability and advantages of planned work and systematic operations. Men trained in railroad accounting departments are recognized for their ability to organize and systematize clerical operations, and the railroads which will give recognition to this fact and place the responsibility for all clerical methods and procedures under the jurisdiction of the chief of the accounting department will find that the cost of doing such work will be materially reduced.

Systematizing Clerical Work

Certainly it is in the accounting department that clerical training, methods and procedures are, or should be, the most efficient. It seems only logical that the work of all of those performing a clerical function, wherever they are located, should be under the scrutiny of the head of the accounting department. To accomplish this, it is only necessary to establish a "methods and procedure section" under the jurisdiction of the chief accounting officer and to authorize this group to review all clerical methods. The search for new methods and the development of existing procedures should be part of their assignment.

The production work previously referred to has caused the supervising officers and others to employ the instrumentalities of the efficient shop or factory supervisor. Such tools as planning, work orders, routing, scheduling, inspection and the recording of progress have been adapted to the office produc-

tion job. Although these tools, as such, may not be utilized to their fullest extent at the present time, the growth in their use will be rapid when the advantages that lie therein are more fully appreciated.

The necessity for the use of these tools in connection with production work has led to their adoption on other clerical work performed in the accounting department to an extent that seems to require that, in addition to training in accounting and clerical methods and procedures, supervisors in accounting departments should also be trained in the application of the principles of production engineering to office work. Failure to provide specific training for supervisors of clerical work and those who will eventually supervise such work in the basic principles that underlie economic production—such as division of labor, transfer of skill, transfer of thought, and the use of recorded experience—results in clerical costs greater than should be necessary. There is much that can be done to reduce clerical costs if all methods are carefully analyzed and the "one best way" is employed, just as there is probably much that can be done to reduce other expenses once standard costs have been established.

Accounting "Non-Productive"?

It is said that accounting departments are non-productive, i.e., a seemingly necessary evil and, therefore, should be operated at the lowest possible cost. If an accounting department is not productive, one thing is certain and that is that it is not being used properly and to the extent possible. Railroads produce only the intangible commodity called service, so to be productive the department must, like other departments, provide service at the lowest possible cost.

This review of the nature of the work performed in the accounting department was made for the purpose of suggesting ways in which the facilities of the department may be utilized to produce better service at lower cost. The suggestions include:

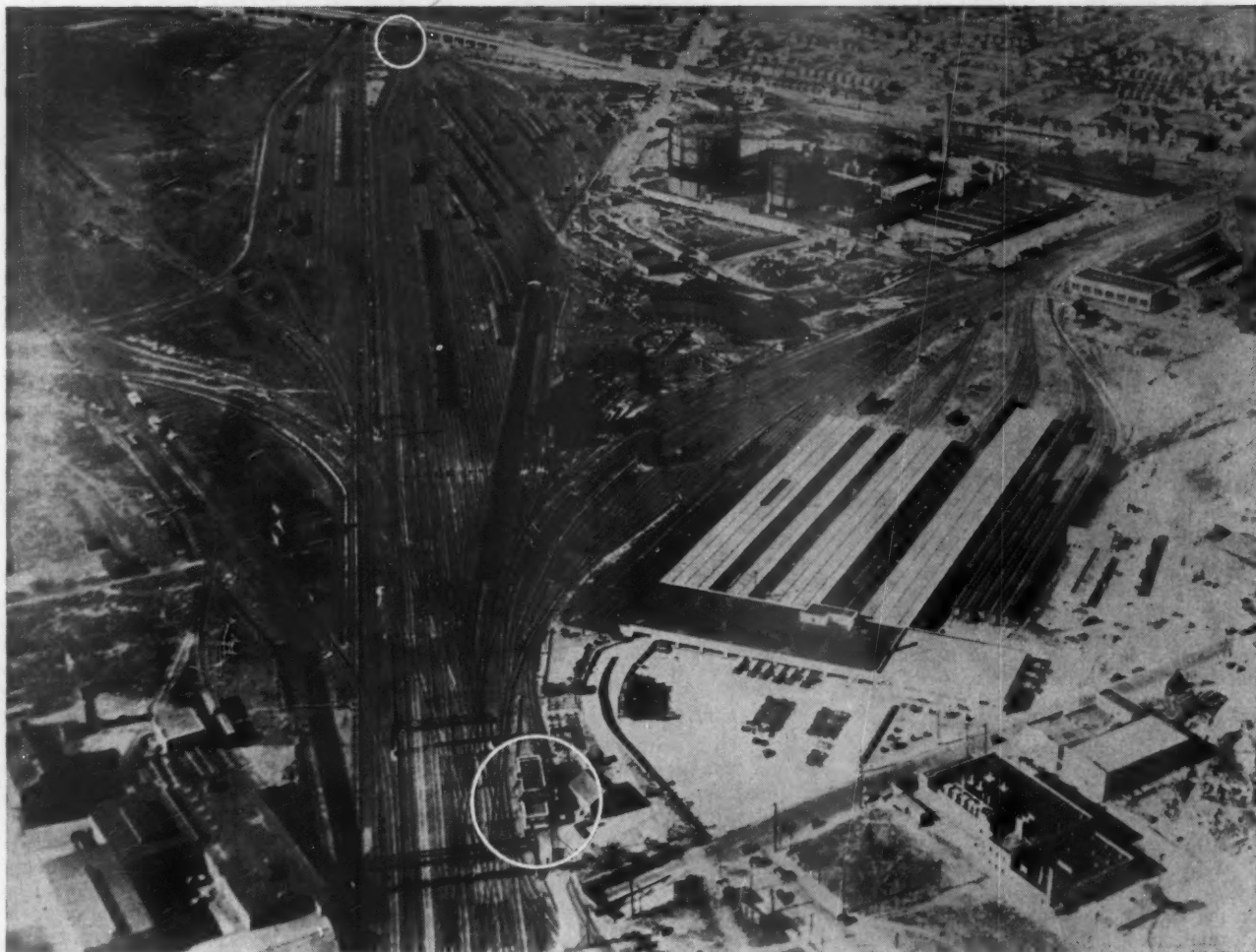
1. Revision of classification of accounts so as to enable the accountant to furnish information of value to management on a current basis.

2. Audit of all tools of management by a staff of internal auditors.

3. Establish performance "yardsticks" so statistical and cost statements will have real value.

4. Utilize the knowledge of improved methods and production management of those responsible for the largest single group of clerks in the effort to reduce clerical costs throughout the organization.

If we mean to meet the growing competition in the transportation field, the only weapon we can use is "service at low cost." If we expect to operate at low cost, full utilization of the facilities of all departments will have to be made.



Airplane View of the B Section of the Yard Showing the Location of the B Tower Near the Top of the Picture and the A Tower Near the Bottom. The Area Controlled by the A Tower, Not Shown in the Picture, Is Similar in Size to That Controlled from Tower B

Dual-Frequency Yard Communication

Large yard divided into two sections employing different frequency communicating systems—Push-button control permits locomotives to move from one section to the other

TESTS were initiated last April in the Jacksonville, Fla., terminal to determine the desirability of dividing the railroad yard terminal area into two sections insofar as control tower to fixed mobile yard communications are concerned. The reason for such division is that the total number of locomotives operating in a yard might require more "numbers on the party line" than could be handled effectively.

The tests were conducted by railroad radio communications engineers of the Bendix Aviation Corporation's Radio division in cooperation with the Jacksonville Terminal. The tests were part

of a continuing series of tests being conducted by Bendix with railroads throughout the nation in the use of railroad radio communications for all phases of operations.

Very-High Frequency Radio

For the purpose of the test, two control towers and two locomotives were equipped with Bendix very-high frequency radio equipment; one locomotive and tower normally employed a frequency of 156.525 megacycles and the other tower and locomotive used a frequency of 118.650 megacycles. Each in-

stallation, however, may operate on either frequency, changeover being made by simple push-button control. This system enabled either locomotive to communicate within either zone and, in addition, permitted radio communication between control towers. Similarly either control tower could communicate with locomotives in both zones. The same broad band antenna shown in one of the illustrations is used for both frequencies.

Push-to-talk hand microphone sets and loud speakers are used at two points on each locomotive, one for the conductor riding the rear of the tender, and one for the engineman.



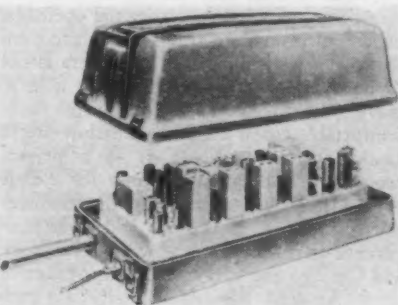
An Engineman Using a Hand Microphone—A Portion of the Antenna May Be Seen Above the Cab Roof

Train information within the terminal, including times of arrival and departure, number of cars to be added or removed, special servicing orders, and on-the-spot handling may be radioed from two control towers simultaneously. At the Jacksonville terminal a yardmaster stationed at a central point is responsible for the make-up of the train. With the aid of radio communication, he is able to handle his trains in approximately one-third less time than required without radio communication.

Apparatus Used for Tests

During the tests messages were successfully radioed from either control tower to locomotives. During coupling or switching operations incoming mes-

sages in most cases can be heard at a distance of several yards from the rear speaker. In cases where the conductor is beyond range of the rear speaker, the



Combination Transmitter and Receiver



An Operator in One of the Towers

tower may radio the engineman who then relays messages to the conductor. Apparatus used for the tests employed amplitude modulation and proved to be noticeably free from interference. No difficulty was encountered in "blind spots" or congested areas. The two control towers at Jacksonville are located about one-half mile apart and the maximum yard transmission distance was approximately five miles. Specially designed microphones which are sensitive only to sound entering the microphone from one direction, eliminated most of the mechanical background noise in the locomotive cabs. Power for operation of the locomotive sets was obtained at 32 volts direct current from the headlight generator. Fixed tower control equipment operated on 110-volts 60-cycle commercial supply.

NEW BOOK . . .

The Builders of the Bridge; D. B. Steinman. Published by Harcourt, Brace and Company, 383 Madison Ave., New York 17, N. Y. 452 pages, 5½ in. by 8 in. Bound in cloth. Price \$3.50.

This book is a biography which records the life and achievements of two prominent engineers, John Roebling and his son, Washington Roebling, who fought for years to prove that suspension bridges could be built to carry heavy loads safely over the longest conceivable spans. This biography tells of the education of John Roebling in Germany, his thirst for knowledge, his training in engineering, and his emigration to America in 1831, where he founded a farming colony in Pennsylvania. A few years later he turned to engineering work, surveying canals, river improvements, portage railways, turnpikes and steam railroads. He also patented an invention for wire rope and established his own wire rope mill at Saxonburg, Pa., later moving it to Trenton, N. J.

At the same time, Roebling continued his engineering activities and built the world's first suspension aqueduct over the Allegheny river at Pittsburgh, Pa. This was the first step toward his real ambition, to build a suspension bridge. Next, the biography describes the construction of the Monongahela suspension bridge at Pittsburgh, the Delaware river suspension aqueduct at Lackawaxen, Pa., the Niagara railway suspension bridge and the Ohio river suspension bridge at Cincinnati, Ohio.

Interwoven into the later chapters are the training and development of young Washington Roebling. Finally, the book tells in considerable detail of the planning and construction of John Roebling's "dream span," the Brooklyn bridge, during which a construction accident ended his life, and his son, Washington Roebling, was stricken with caisson disease.

The pages of this biography contain much historical data on engineering development and problems in the period from 1837 to 1883. The book is interesting also from a narrative standpoint, as it reveals the prejudices of the times and the obstacles to success that were overcome one by one by the Roeblings.

COMMUNICATIONS . . .

Time to Weigh Fare Reductions

FPO, SAN FRANCISCO.

TO THE EDITOR:

Being interested in railroads both as a hobbyist and a stockholder, I was deeply concerned to learn that, as a result of a recent reduction of airline passenger fares, the cost of plane transportation is now somewhat less than the price of a first class railroad ticket and Pullman accommodations.

While the traditional conservatism of the railroads has not permitted them to make any statement concerning a reduction of both coach and first class rail fares after the war, a study of the issues involved in the coming battle between the plane and the train for the privilege of carrying America's traveling millions deserves serious attention at this time.

The airplane has the following advantages over the passenger train:

- (1) Speed.
- (2) Extra services to patrons (courtesy, free meals aloft, personal attention, etc.).
- (3) More frequent service between terminals (in all but a few cases).
- (4) Cleanliness.

The passenger train has the following advantages over the airplane:

- (1) More freedom of movement within the train itself.
- (2) Central location of terminals within metropolitan districts.
- (3) Scenic attractions which can be more readily enjoyed from a train window than from a plane flying at high altitudes.
- (4) Availability under adverse weather conditions.

Safety cannot be considered an advantage possessed by either train or plane, and after the war the latter can reasonably be expected to equal the best railroad safety record of the past.

After studying the advantages listed for the plane, it is safe to say that the railroads will be unable to overcome any of them, unless the airline employees, after becoming mass carriers, turn bitter, sour and discourteous toward their patrons. By adopting a policy of courtesy and personal attention to passengers, the railroads may neutralize some of the extra services which the airlines offer their customers. But many railroaders will have to unlearn a lot of bad manners before such a policy could be effective. The railroads may be able to make great strides in cleanliness through the adoption of Diesel or electric motive power and the development of passenger equipment more efficiently sealed against dirt and grit.

Neutralizing Railroad Betterments

Moreover, after studying the list of advantages given to the passenger train, it is apparent that the further development of air travel may neutralize all those advantages with the exception of scenic attraction, which the people may find more satisfying from the window of their private automobile or from the cabin of their

private helicopter anyway. The railroads' position as passenger carriers would thus become exceedingly precarious, with the bulk of their customers being elderly maiden aunts, die-hard conservatives who cannot be won over to air travel, and railroad "fans."

There is, however, one very important point which, all else being comparatively equal, will determine which form of transportation the public will patronize. That point is the price involved. Although the post-war value of the dollar cannot yet be determined, the price of a ticket can be discussed on the basis of comparison. If the airlines will fly passengers at three cents a mile, then the railroads must carry a coach passenger for one cent a mile and a first class passenger for a cent and a half a mile plus the price of Pullman accommodations. If the railroads cannot offer transportation for one-third to one-half the price of air travel, then the railroads will not get the bulk, or even a large share of the business.

Service to Insure Passengers

While the older railroaders who used to think in terms of hauling a passenger for 3.6 cents a mile may blanch at such low fares, the gross income from the operation of fast, ultra-modern trains which are comparatively well filled with customers is not to be overlooked. Imagine being able to travel from New York to Chicago in a comfortable coach for \$9.10 plus low-priced meals and refreshments or in a private room on a Pullman streamliner for a little over \$20! A ten-car coach streamliner consisting of seven revenue and three non-revenue cars operating between New York and Chicago and carrying on an average of three hundred passengers daily in each direction would gross nearly \$2,000,000 a year. Pullman streamliners would not be able to carry nearly as many passengers as coach trains, but at one and a half cents a mile, they could be operated at a profit. And such service must be provided to keep customers from the airlines.

Looking at Subsidies "Realistically"

The railroaders emit cries of anguish that government subsidies in the form of large airports and navigational aids make it possible for the airlines to carry passengers at low fares. But look upon these subsidies realistically. Many such projects are already completed, and it is doubtful if the government will ask the airlines to pay for them now. Although vigorous attempts can be made to demonstrate to the public the inequality of giving such subsidies to one form of transportation, the public has begun to think such government spending is worth while. Probably the public will continue to believe so. The railroads must accept this inequality as a fact and must base their future plans on that fact.

Some railroad officials may reply that passenger business is on the whole a necessary nuisance and, if the airlines wish to handle the bulk of the traveling public, that is okay with them—they will concentrate on hauling freight. Now I don't believe that even the most ardent airplane enthusiasts will predict the day when planes will be hauling coal, ore, and heavy steel products. But there are certain commodities now being transported by the railroads which may be transported by large cargo planes at only a slight increase in cost to the business man. Progressive business men who will patronize the airlines, unless the railroads can entice them with lower fares, may become so "air-minded" that they will be willing to ship their products by air freight with the advantage of quick delivery outweighing the increased transportation cost. By losing passenger business, the railroads also stand to lose a portion of their freight traffic.

No mention has been made concerning the bus-train competition. Where duplicate service is offered, and the rail fare is only one cent a mile, there is little doubt which method of travel the public will choose.

In conclusion, unless the railroads are willing to establish fares well below those offered by the airlines, the railroads had better not waste their money on new passenger rolling stock, improved roadbed, and stations, because the airlines will carry the bulk of the traveling public anyway.

WILLIAM D. STEVENSON,
Major, U. S. M. C. R.,
4th Sig. Co., 4th Mar. Div.,
Fleet Marine Force

First Railroad Completely Dieselized

SAN ANTONIO, TEX.

TO THE EDITOR:

In June 30 issue the statement is made that "with the delivery of the sixteenth Diesel-electric locomotive to the New York, Susquehanna & Western this becomes the first Class I railroad to be operated entirely by internal combustion motive power equipment in freight, passenger and switching services." This is entirely incorrect. The Texas Mexican Railway Company, also a Class I railroad, fully Dieselized its motive power in the Spring of 1939 through the purchase of six full Diesel-electric locomotives from the Baldwin Locomotive Works. We have since acquired one full Diesel-electric locomotive and now have two two-unit 3,200-hp. full Diesels building in our own shops. You will see, therefore, we are not only the first Class I railroad entirely operated by internal combustion powered locomotive equipment, but we are also the first railroad to build standard main line Diesel locomotives in our own shops.

As a further item of interest, the locomotives which we designed and which were built by Baldwin are powered with full Diesel engines which operate on ordinary fuel oil instead of distillate.

R. W. MORRISON,
President

GENERAL NEWS

C. & O. Board Votes Approval of Merger Starts machinery to take over Wheeling & Lake Erie, Pere Marquette and N. K. P.

Directors of the Chesapeake & Ohio on August 21 authorized the road's officers to prepare a plan for merging the New York, Chicago & St. Louis, the Pere Marquette and the Wheeling & Lake Erie into the Chesapeake & Ohio. A formal plan will be submitted to the boards of directors of the four railroads for consideration and submission to their respective stockholders as soon as final details can be worked out. The merger will require authorization by the Interstate Commerce Commission.

Tentative plans call for accomplishing the merger through issuance by the C. & O. of approximately 645,000 shares of new \$100 preferred stock and approximately 670,000 shares of new common, to be exchanged for subsidiary line issues as follows: one share of C. & O. preferred and seven-tenths share of C. & O. common for each share of Nickel Plate 6 per cent preferred; nine-tenths share of C. & O. common for each share of Nickel Plate common; one share of C. & O. preferred and one-third share of C. & O. common for each share of Pere Marquette prior preference; eight-tenths share of C. & O. preferred and four-tenths of C. & O. common for each share of Pere Marquette preferred; one-half share of C. & O. common for each share of Pere Marquette common; one share of C. & O. preferred for each share of Wheeling & Lake Erie 5½ per cent preferred, and one and one-half shares of C. & O. common for each share of Wheeling & Lake Erie common. The small amount of Wheeling & Lake Erie prior lien stock not owned by the C. & O. probably will be acquired for cash.

The proposed merger plan, made public at a press conference on August 21, would unite into a single system about 7,500 miles of railroad lines running through some of the nation's most important industrial centers. Net investment in transportation properties, after depreciation, of the four roads involved would be approximately \$900 million. The press conference was attended by Carl E. Newton, president of the C. & O., John W. Davin, president of the Nickel Plate, Robert J. Bowman, president of the Pere Marquette, and various other officers of these roads, all of whom expressed confidence in swift resumption of peace-time industry and continued prosperity for the railroads.

Mr. Newton said the C. & O. looked forward to a gross operating revenue in

Strike Threat on I. C.

The strike of members of the Brotherhood of Locomotive Firemen & Enginemen on the Illinois Central, ordered for August 24, had still not been called off when this issue of *Railway Age* went to press, although last-minute mediation efforts by government officials were continuing.

The strike, as briefly noted in last week's *Railway Age*, was called by the firemen's organization in a jurisdictional dispute with the Brotherhood of Locomotive Engineers—the firemen's leaders refusing to accept the findings of an "emergency board" assigned to adjudicate the dispute.

1945 only 5 per cent below that of 1944—or \$206,000,000—as compared with a wartime peak in 1944 of \$217,000,000. Last year the line carried 62 million tons of coal.

The chief executives of all three roads said plans already are in operation to "streamline" both trains and service through the purchase of new equipment, the overhauling of existing rolling stock and the employment of additional personnel. R. S. Marshall, senior vice-president of the C. & O., pointed out at the meeting that the proposed merger would make possible substantial savings in operating and accounting expenses and that the single system of operation, over the shortest, most direct routes, would lead to a more efficient service.

Distinguished Service Medal Awarded Brig. Gen. Burpee

Commanding General of the 2nd Military Railway Service, Brig. Gen. Clarence L. Burpee, former Atlantic Coast Line railroader, recently was presented with the Distinguished Service Medal by Maj. Gen. Frank S. Ross, chief of transportation in the European theater, at a formal military ceremony in Brussels, Belgium. Already holder of the Legion of Merit with one Oak Leaf Cluster for service in North Africa and Italy, the Bronze Star Medal for his work in France, and the French Croix de Guerre, General Burpee was especially cited in his most recent award for his direction of military railway operations in France and Belgium, and for his planning and supervision in restoring railroad facilities in devastated areas.

In presenting the decoration, General Ross said "our government does not award the D. S. M. lightly. It is given only for outstanding achievement in positions of great responsibility, and in 29 years of service I have yet to see one awarded that was not doubly earned."

Captured Locomotive Named for Gen. Gray

German 2-10-0 condenser-type
engine presented to him
by M. R. S. outfits

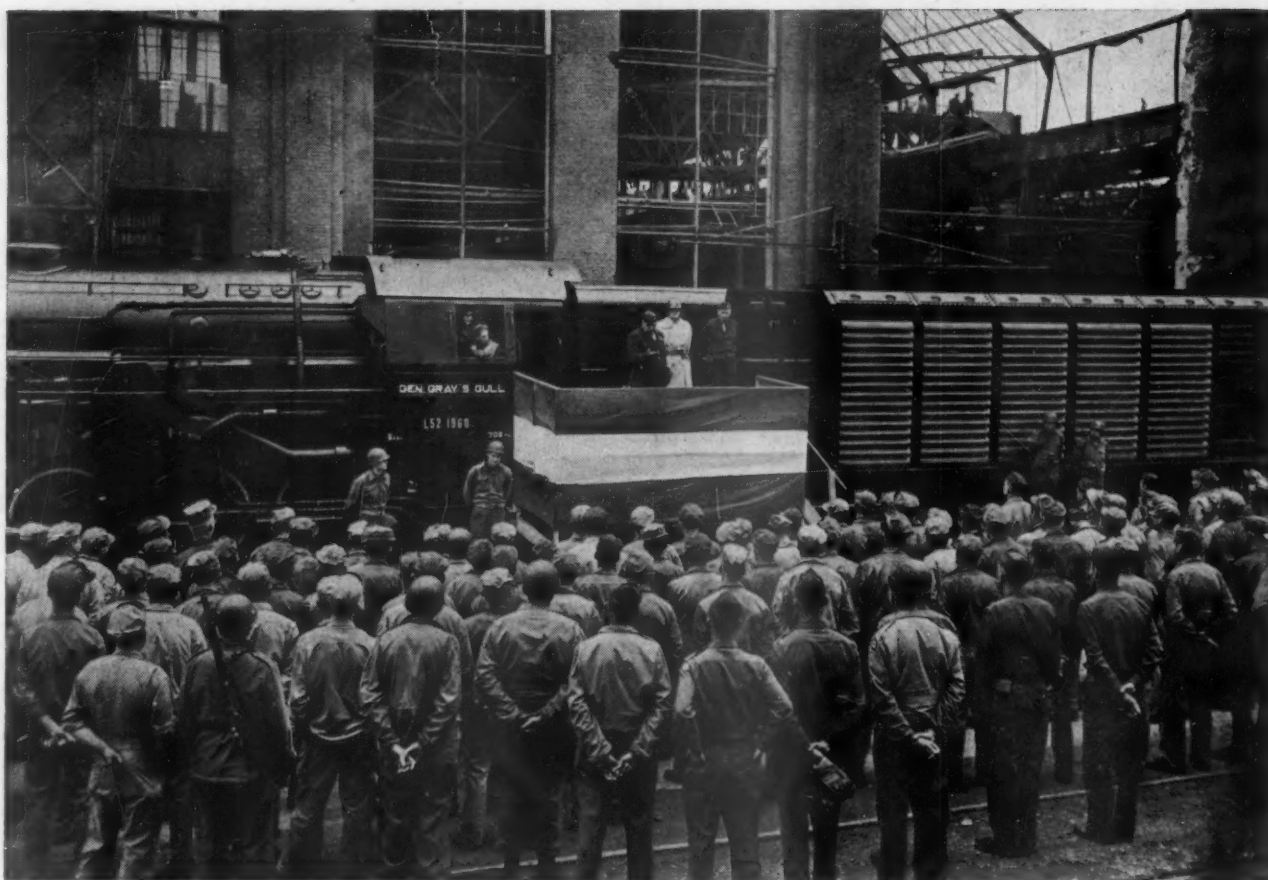
The first of 18 captured German 2-10-0 condenser-type locomotives recently was presented to Brig. Gen. Carl R. Gray, Jr., director general of the Military Railway Service, and former general manager and executive vice-president of the Chicago, St. Paul, Minneapolis & Omaha, by the Baltimore & Ohio-sponsored 708th Railway Grand Division and its attached battalions. In a dedication ceremony, at Kassel, Germany, before a large gathering of officers and enlisted men, the locomotive was christened "Gen. Gray's Gull," and was presented to the director general by Col. William S. Carr, commanding officer of the 708th, on leave as assistant superintendent of the New York, New Haven & Hartford.

Representing the 757th Railway Operating Battalion, which prepared the locomotive for Gen. Gray, was Lt. Col. John W. Moe, of Minneapolis, Minn., commanding officer of the 757th, who hails from the Chicago, Milwaukee, St. Paul & Pacific.

This marks the fourth occasion that a captured locomotive has been named for a top commanding M. R. S. officer in the European theater. As noted in the March 10 issue of *Railway Age*, Maj. Gen. Frank S. Ross, chief of transportation, Maj. Gen. Ewart G. Plank, commanding general of advanced section, Communication zone, and Brig. Gen. Clarence L. Burpee, commanding general of the 2nd M. R. S., were similarly honored by the dedication of "General Ross' Raider," "General Burpee's Buzzer" and "General Plank's Pride."

The "Gull," found at Wabern (near Kassel) by Lt. Col. John S. Major, of Staten Island, N. Y., former B. & O. employee, and superintendent of equipment for the 708th, was one of the 240 ordered by the Nazis in 1942 from Henschel & Son, German locomotive builders. This condenser-type locomotive can run long distances—more than 660 miles—without taking on water, and because of this feature has sometimes been called the "camel" by M. R. S. men. Headquarters describes it as follows:

"They are conventional steam engines with a device to reclaim the exhaust steam in the tender. The exhaust steam coming from two cylinders is joined and flows to a suction fan turbine in the smokebox. From there it is driven through a large exhaust pipe on the left side of the engine through an oil separator to the tender. All exhaust steam, from the cylinders, feed pumps, air pump, light generator and safety valve, en-



Officers and Enlisted Army Railroaders Attend Dedication of "Gen. Gray's Gull," at Kassel

ters a fan turbine where the necessary fresh air draft for condensation is produced. Coming out of this turbine, it is equally divided into two streams, and admitted into the left and right side radiators where the steam is condensed. The water then flows into collecting chambers in which are also oil separators."

The first locomotive of this type was purchased some years ago by Argentina. Iraq and Russia later placed orders. M. R. S. railroaders have registered approval of the "camel" in road service. Observes Colonel Moe: "It is a very practical locomotive, cutting fire-box and flue difficulties to a minimum."

Canada Concerned Over How to Finance Transport

Hints of fresh attempts at getting Dominion-wide uniformity in the regulation of highway traffic, as well as commercial aviation, and of a closer approach to complete Dominion rather than provincial control are contained in elaborate proposals submitted by the Dominion government a few days ago to the provincial governments at a conference in Ottawa, called to deal with the many phases of post-war economic and social security measures.

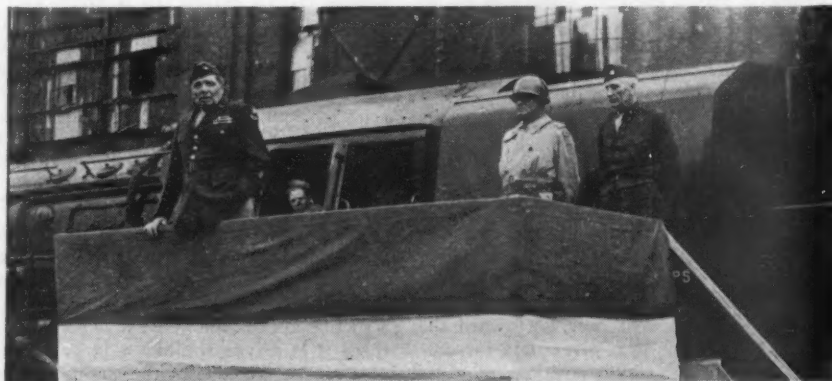
It was considered significant that the whole tangled question of post-war trans-

portation—how the railways that have done a tremendous job in the war should be protected from unfair highway competition—was dealt with under the heading of "Public Investment Policy." There was the suggestion that in the extensions of necessary rail facilities, the improvement of existing services and other subjects, if the provinces or the private interests failed to assume the task the Dominion government might take it on.

Two paragraphs in the federal brief presented to the provinces at Ottawa on August 6 follow:

"In the field of transportation the Dominion has in the past generally assumed full responsibility for national transportation facilities (inter-provincial railways, canals, national harbors, navigable rivers) specifically assigned to it by the constitution. The more recent forms of transportation, namely motor highways and air transport facilities, have some time ago developed to the stage where in certain respects they raise matters of broad national concern. Here the nature and extent of Dominion activity and assistance has grown up piecemeal and has varied from time to time and place to place. In the reconstruction program it is desirable that the Dominion's role regarding matters of national interest in national highways and airports be clarified, and that a definite and practicable basis of Dominion-provincial co-operation be established.

"The possibilities of co-ordinating Dominion, provincial and municipal expendi-



On the Platform with General Gray Are Col. William S. Carr (in Helmet) and Lt. Col. John W. Moe

tures and interests in the whole field of rail, road, air and water transportation is a problem which is not only large in magnitude but extraordinarily complex, and will require the most thorough consideration. The best form this consideration might take would appear to be an appropriate subject for study by one of the continuing committees of this Conference."

July Operating Revenues Show 2.3 Per Cent Drop

From preliminary reports of Class I roads representing 80.2 per cent of total operating revenues, the Association of American Railroads has estimated that the July gross totaled \$633,247,754, a decrease of 2.3 per cent below the \$648,473,084 reported for July, 1944. Estimated July freight revenues were \$466,070,499, compared with \$473,390,294, a decrease of 1.5 per cent. Estimated passenger revenues were \$121,696,125, compared with \$131,246,630, a decrease of 7.3 per cent.

July Export Traffic

Export freight, excluding coal and grain, handled through United States ports in July totaled 158,178 cars, compared with 156,860 cars in the same month last year, an increase of one per cent, according to the Association of American Railroads.

Export grain unloaded at the ports in July totaled 15,622 cars, compared with 3,985 in July, 1944, or an increase of 292 per cent. Railroads handled 1,670 carloads of coastal freight in July, compared with 277 in the same month in 1944, or an increase of 503 per cent.

The movement through North Atlantic ports decreased 12 per cent, largely because of the discontinuance of the flow of war materials to the European theatre, but the movement through South Atlantic and Gulf ports increased 73 per cent and through Pacific Coast ports, 44 per cent.

Chesapeake & Ohio Frames New Advertising Series

A new series of display advertisements, called a "departure from the usual tenor of railroad advertising" has been launched by the Chesapeake & Ohio.

Treating of topics relating to the post-war, and notably the outlook for employment along C. & O. lines, the railroad starts off the series with "How Many Postwar Jobs—From Coal?" with text in part as follows:

"Not only will coal continue as one of our basic sources of power, but from coal research have come a host of new products, even further increasing its use. . . . Post-war you will find sheer, wrinkle-proof dresses made from coal. Sturdy shoes made from coal. . . . There are even revolutionary locomotives—including the C. & O.-planned steam-turbine electric. . . ."

Pullman Cancels Sleeping Car Operating Contracts

The Pullman Company has notified railroads of its intention to cancel sleeping car service contracts with the carriers as of December 31 of this year. Provisions of the contracts include a six-months' cancellation right by either party, but it is

believed that in the event Pullman does not find a buyer for the facilities by December 31, some arrangement will be made for the continuance of the service.

Issuance of the Pullman statement was seen in some circles as a method adopted by the company to inform the Federal court at Philadelphia, as well as the railroads, of the firm's intentions to carry out a recent court order that the company must dispose of either the capital stock or physical assets of the sleeping car business not later than March 22, 1946. It will be recalled that this order resulted from the Department of Justice's anti-trust suit.

Pullman, Inc., has offered to sell all of its capital stock in the Pullman Company (its sleeping car subsidiary) to the railroads of the nation, according to a statement issued by David A. Crawford, president of the parent organization, and incorporated in the firm's second quarter statement to stockholders. An earlier offer to the railroads to sell them the physical assets of the Pullman Company apparently has not been very favorably received by the carriers.

Pullman-Standard Holds Orders Totalling 78 Million Dollars

The ending of World War II, with its beginning of the resumption of the manufacture of civilian products, is more than welcome to the Pullman-Standard Car Manufacturing Company because that organization is holding more than 78 million dollars in orders for railroad equipment, fabrication of which has already started. In this connection C. A. Liddle, president, said in part:

"With the lifting of war restrictions, our nation should almost immediately enter one of the greatest periods of progress in its history. There should be almost no limit to our industrial activity as we assume the big task of catching up on where we left off in 1941. In this reconstruction era nothing will be more important than the re-equipment of our railroads on such a basis that they will be able to function effectively, no matter what the demands of our revitalized national economy."

Bronze Star for P. R. R. Men

A former night freight trainmaster on the New York division of the Pennsylvania, in military service since October, 1943, Col. Louis G. Jamison, of Jersey City, N. J., recently was awarded the Bronze Star Medal, on the recommendation of Gen. George S. Patton, commanding general of the Third Army.

The colonel's citation reads, in part: "For meritorious service in connection with military operations as commanding officer of the 706th Railway Grand Division from December 19, 1944, to January 14, 1945. Colonel Jamison ingeniously utilized railway equipment and personnel to move supplies to the Third United States Army. He was responsible for the prompt and efficient rehabilitation of railway lines and facilities extensively destroyed by enemy demolition. He distinguished himself in moving personnel and supplies in time to frustrate the counter-attacks of the enemy in eastern Belgium and Luxembourg."

It was reported by Headquarters, that at

one time the lines under Col. Jamison's supervision extended into four countries—France, Belgium, Luxembourg and Germany—and that his units were able to run ration supply trains to divisional supply points within 25 miles of the front.

Rail Mission to Colombia

The Office of Inter-American Affairs has announced that, as a part of a program for cooperation between the United States and other American countries in meeting railway transport problems arising from the war, it has assigned Herman D. Knecht, who formerly was employed on the engineering staff of the Missouri Pacific, as a consultant on rail transportation in Colombia, where he will have headquarters at Cali. Other railway specialists may be assigned to work with him later, if the need arises, it was indicated.

Milwaukee Booklet Invites Vets to Enjoy Post-war Travel

A bid for post-war travel of returning armed service veterans has been made by the Chicago, Milwaukee, St. Paul & Pacific by the publishing of a booklet entitled "Veteran's Victory Vacations." Containing 94 photographs, three maps and 38 cartoons, the 72-page booklet outlines points of interest in the national parks and forests, cities and ranches, as well as listing fishing and hunting territories of the nation. The book is practically devoid of scenic descriptions and, while not written in strict army and navy vernacular, it employs terms peculiar to members of the armed forces.

Iran Diesel Shop Outfit Sets Up New Depot at Munich

When Col. Arthur E. Stoddard, general manager of the 1st M. R. S. recently looked over the 762nd Railway Shop Battalion in its new set-up at Munich, Germany, where it is rushing to completion a Diesel spare parts depot, he "expressed satisfaction" at the "model installation" which has emerged from the "chaos of rubble and wrecked cars" that challenged the outfit on arrival. Comparatively new to the European theater, the 762nd was stationed in Iran when called to Munich and, flying from Iran to Marseilles, it became what is believed to be the first "airborne" battalion in the M. R. S.

Commanding officer of the 762nd is Lt. Col. W. C. Rogers, of Rye, N. Y., formerly with the American Locomotive Company.

Some Southerners Object to Class Rate "Uniformity"

A petition filed with the Interstate Commerce Commission on behalf of "southern industrial interests" has asked for re-opening and reconsideration of the Nos. 28300 and 28310 proceedings, in which the railroads have been directed to take action toward eventual establishment of a "uniform" system of class rates throughout the area east of the Rocky mountains. This order of the commission, the petition contended, was not based on evidence of record, as such evidence did not support the findings in the majority report.

"The facts of record positively disprove the contention that the South cannot freely ship its goods to the North," it said. "The

record shows that, in proportion to production in the two territories, the South ships four times as many carloads of manufactures and miscellaneous to the North as the North ships south." The whole question of rate uniformity properly belongs to further congressional action, the petition concluded, pointing out that advocates of uniformity are not shippers, but are those who view it as an academic principle of regulation.

Freight Car Loading

Loadings of revenue freight for the week ended August 18 totaled 652,832 cars, the Association of American Railroads announced on August 23. This was a decrease of 217,175 cars or 25 per cent below the preceding week, due to the holidays which came with the cessation of hostilities in the Pacific. The decrease under the corresponding week last year was 233,791 cars or 26.4 per cent while the drop under the comparable 1943 week was 238,508 cars or 26.8 per cent.

Loading of revenue freight for the week ended August 11 totaled 870,007 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For the Week Ended Saturday, August 11			
District	1945	1944	1943
Eastern	163,888	160,693	169,520
Allegheny	190,371	196,740	193,992
Pocahontas	53,597	58,143	56,690
Southern	118,985	121,370	117,428
Northwestern	135,316	139,812	144,922
Central Western	138,089	142,524	132,293
Southwestern	69,761	75,899	72,419
Total Western Districts	343,166	358,235	349,634
Total All Roads	870,007	895,181	887,164
Commodities			
Grain and grain products	63,481	51,206	57,398
Live stock	14,932	15,967	14,988
Coal	169,344	178,982	177,026
Coke	14,045	14,200	14,385
Forest products	46,356	50,140	48,699
Ore	72,845	80,426	88,670
Merchandise l.c.l.	106,855	106,605	100,790
Miscellaneous	382,149	397,655	385,208
August 11	870,007	895,181	887,164
August 4	863,910	859,594	872,133
July 28	886,271	909,490	885,525
July 21	882,323	902,092	883,838
July 14	883,268	903,901	877,335

Cumulative Total,
32 Weeks .. 26,374,128 26,529,806 25,546,002

In Canada.—Carloading for the week ended August 11 totaled 68,633 as compared with 70,421 for the previous week and 67,998 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Totals in Canada:		
August 11, 1945 ..	68,633	33,620
August 12, 1944 ..	67,998	36,905
Cumulative Totals in Canada:		
August 11, 1945 ..	2,192,340	1,168,593
August 12, 1944 ..	2,219,025	1,235,053

Equipment on Order

Class I railroads on August 1 had 33,050 new freight cars on order, according to the Association of American Railroads. On the same date last year, they had 37,985 on order.

The August 1, 1945, figure included 5,754 hopper, 4,362 gondolas, 979 flats, 18,464 plain box, 2,446 automobile, 995 refrigerator and 50 miscellaneous cars.

They also had 496 locomotives on order

on August 1, compared with 608 on the same day in 1944. The former figure included 109 steam, two electric, and 385 diesel-electric locomotives compared with 172 steam, two electric, and 434 diesel-electrics one year ago.

Class I roads put 24,939 freight cars in service in the first seven months this year compared with 18,774 in the same period last year. Those installed this year included 7,460 hopper, 4,224 gondola, 383 flat, 239 stock, 1,600 refrigerator, 1,131 automobile box and 9,815 plain box freight cars, and 87 miscellaneous cars.

They also put 367 new locomotives in service in the first seven months of which 56 were steam, and 311 were diesel-electric. New locomotives installed in the same period last year totaled 579, which included 211 steam, one electric, and 367 diesel-electric.

N. Y. C. Issues Handbook of "Company Manners"

At the end of "Company Manners," a 20-page illustrated booklet now being distributed to New York Central personnel, there is written: "This last page is really the beginning. For it's the point at which the public relations ideas of this book can go into action—to keep old friends and win new ones for you and your railroad."

On the inside front cover there is a letter from President Gustav Metzman, mentioning a recent poll which had placed the N. Y. C. "up among the highest ranks in railroad courtesy." As Mr. Metzman puts it, "That is a great compliment to the 136,000 men and women of New York Central. It holds far reaching promise for future security and progress, because we are in the business of selling service."

The small compilation just published is really a "handbook," suggests Mr. Metzman, designed "to make us not only a more efficient but also a more thoughtful, helpful and courteous transportation team."

Tips to employees are many. There is stressed the need for politeness, for being businesslike, for giving the new railroader a hand, for knowing the railroad. All hints are pleasantly illustrated, and suggest at a glance the point about to be stressed.

Typical is the page devoted to the N. Y. C.'s "Good Will Department" (note accompanying illustration) which the booklet reminds the reader, "has a staff of 136,000 men and women, and an 'office' 11,000 miles long. It's the biggest department on the railroad because it is the railroad."

"Above all, let's treat people with cour-

tesy that builds good will. . . . The thing on which the future of our railroad and ourselves so largely depends," the message reads.

July Ton-Miles

The volume of freight traffic handled by Class I roads in July amounted to 60,100,000,000 ton-miles, according to a preliminary estimate by the Association of American Railroads. The decrease under July, 1944, was 4 per cent.

Revenue ton-miles of service performed by Class I roads in the first seven months of 1945 was 1.5 per cent under 1944, but 3 per cent greater than the corresponding period two years ago.

The following table summarizes revenue ton-miles for the first seven months of 1945 and 1944:

	1945	1944	Per cent change
First 5 months	302,352,766,000	306,851,339,000	Dec. 1.5
June ..	62,600,000,000	61,715,237,000	Inc. 1.4
July ..	60,100,000,000	62,539,667,000	Dec. 3.9
Total 7 months	425,052,766,000	431,106,243,000	Dec. 1.4

a Revised estimate.
b Preliminary estimate.

No Decline in Western Traffic

Because of the magnitude of the war effort the arrival of V-J Day is not expected to bring about a decline in rail passenger or freight traffic so far as western lines are concerned, according to a statement issued recently by C. E. Johnston, chairman of the Western Association of Railway Executives. Mr. Johnston declared that, although there will be immediate and important shifts in the character of freight traffic, "the total load will continue in substantial volume during the remainder of the year."

Intermediate Point Rule Is Interpreted by I. C. C.

Resolving a controversy over the proper interpretation of tariffs where a shipper claimed a destination intermediate-point rule applied and the carriers contended that combinations of proportional commodity rates were controlling, a majority of the Interstate Commerce Commission has found that, in the particular circumstances before it in the No. 28552 proceedings, referred to as *Swift vs. Alton*, the aggregates of specific proportional commodity rate factors constituted commodity rates and therefore were applicable, as the railroads contended, to the exclusion of the rates made by the intermediate rule.

The case grew out of Swift's complaint against rates charged on certain carload shipments of fresh meat and packing house-products to Cincinnati, O., from points west of the Mississippi river. The rates charged were combinations of proportional commodity rates contained in separate tariffs applying to and from specified east-bank Mississippi river crossings, while Swift argued that the lower joint commodity rates published from the same origins to Louisville, Ky., should have been applied, asserting that the intermediate-point rule was applicable to such joint rates, Cincinnati being considered as an intermediate point on open routes via the Chicago district or river crossings to Louisville.



As reported in *Railway Age* of October 28, 1944, a definite cleavage of opinion developed as to the significance of the intermediate-point rule under such circumstances, as well as to the proper disposition of other questions of tariff construction, and the commission called for arguments on the matter, taking the rather unusual course of issuing at the same time two examiners' proposed reports, setting forth different recommendations for the solution of these issues.

The applicability of the intermediate-point rule turned primarily on the limitations on the scope of that rule provided in Note 4 thereto in the tariffs concerned (Kipps' I. C. C. A-2109 and A-3112), since, according to the majority report, "the intermediate rule, as qualified by Note 4, clearly has no application to any intermediate point in situations where a commodity rate is published to such intermediate point either in the tariff containing the intermediate rule or in any other tariff." Swift argued that since the individual proportional commodity rate factors which the railroads had used appear in separate tariffs, the resulting aggregates do not constitute commodity rates "in any other tariff" within the meaning of the rule.

This argument, the majority said, "ignores certain basic principles of tariff construction." The controlling facts, it went on to point out, are: "(1) that the aggregates of the rates to and from east-bank Mississippi river crossings are composed of specific proportional commodity rate factors which aggregates have been recognized in other proceedings as constituting the applicable rates to Cincinnati; (2) that the tariff authority for applying such aggregates to Cincinnati appears in a single tariff; (3) that such tariff authority was concurred in by carriers whose lines are embraced in the through routes to Cincinnati; and (4) that it was only by virtue of such tariff authority appearing in a single tariff that the aggregates of such factors could be applied on this traffic to Cincinnati." In view of these findings, the majority held that "it is of no particular significance that the mechanics of arriving at the aggregate or single sum, under the tariff situation disclosed here, required the addition of two amounts appearing in different tariffs."

Commissioner Miller concurred in the result of the majority's decision, but on the ground that the claimed routes from points west of the Mississippi through Cincinnati to Louisville are "unduly circuitous, unnatural and illogical, and that therefore the intermediate rule did not apply." Note 4 to the rule, he said further, is "ambiguous," and pending its clarification it should not be interpreted in a way to endanger the usefulness of all existing intermediate rules.

In a dissenting expression by Commissioner Aitchison, in which Commissioners Porter and Lee concurred, the majority's conclusion that the intermediate rule does not apply in the circumstances was termed a "novel" and "unsound" theory of tariff interpretation. The majority report, the dissent said, "departs from time-honored and salutary rules of tariff construction, and by devious means arrives at the conclusion that two separate proportional rates, published in two separate tariffs, are a com-

modity rate in any other tariff' within the meaning of note 4 of the intermediate rule."

The majority has ruled, according to Commissioner Aitchison: (1) that "an aggregate displacing a joint class rate is a joint rate; (2) if composed of two commodity factors it is a commodity rate, and (3) notwithstanding that the factors are physically published in separate tariffs, such aggregate must be considered to be in the class tariff (and therefore in a single tariff) merely because the formula which calls for the use of separately published factors is perforce in the class tariff." But to say that an aggregate of rates is one rate, the dissenting commissioner remarked, "completely disregards the plain wording of the rule."

The result of the majority's decision, Commissioner Aitchison went on to say, will be to destroy the real effect of many prior reports and to reduce substantially the benefits which shippers and carriers now derive from the use of the intermediate rule. Under the principle thus arrived at, he continued, the shipper will not be able to apply a commodity rate to a more distant point under an intermediate rule until he goes through the following procedures: (1) find the class rate; (2) see if it is subject to an aggregate rule; (3) if there is one, locate the lowest aggregate over any route where the class rate applies (which usually means "any conceivable route"); (4) determine whether the aggregate is composed of commodity-rate factors; and (5) if it is, apply such combination, whether higher or lower, and whether or not a long-and-short-haul violation results.

20 Hurt in Santa Fe Collision

Twenty persons were injured on August 21 when two sections of the "Grand Canyon Limited" of the Atchison, Topeka & Santa Fe collided at Franconia, Ariz., 24 miles east of Needles, Cal. Most of the injured were service men. The accident occurred when the second section of the train, pulling out of a siding, was sideswiped by the engine of the third section.

Carriers Consent to Extending Ex Parte 148 Suspension

The railroads which have been parties to the proceedings in Ex Parte 148 on August 17 disclosed their submission to the Interstate Commerce Commission of their consent to a further extension, for such period as the commission may see fit, of the existing suspension of the freight rate increases authorized by the commission in that case in 1942. This action was taken, the railroads indicated, "to the end of avoiding further hearing under conditions such as now exist in respect of travel and manpower."

The authorized increases have been under suspension since May 15, 1943. In consenting to further extension of the suspension, the railroads pointed out that, because of the present great uncertainty as to what conditions they may have to face in the near future, they took this action without prejudice to any application they may later find it necessary to make, before the expiration of the extended suspension, either for reinstatement of the increases authorized in 1942 or for some other increase in the general level of rates.



Chinese Transportation Men Call on A.C.F. at St. Charles, Mo.

Continuing their study of American methods, visiting Chinese railroadmen observe the extensive passenger car building program in progress at the St. Charles plant of American Car & Foundry. Standing before a newly finished hospital car built at the plant are, left to right: L. A. Bedard, sales agent, A. C. F.; Wang Fenrie, traffic manager, Lunghai railway; E. B. Carpenter, sales agent, A. C. F.; M. L. Loh, mechanical engineer, Chi Sze Yen Locomotive Works; H. D. Euwer, asst. mechanical engineer, A. C. F.; Fatuan Li, director of stores and purchase, Canton-Hankow, Hunan-Kwangsi, and Kwangsi-Kweiyang Ry.; W. J. Roa, first asst. mechanical engineer, A. C. F.; E. S. Mao, superintendent, Liukiang Locomotive and Car Works; W. C. Roederer, asst. district manager, A. C. F.; Shen En-tao, traffic manager, Hunan-Kwangsi; W. L. Richeson, asst. vice-president, A. C. F.; and J. W. Lawler, district manager, A. C. F. (For further details see *Railway Age* of June 16, page 1077).

With the Government Agencies

How Army's Cutbacks Will Affect Carriers

Freight load already reduced, passenger peak awaited, officers declare

From the moment that President Truman announced that Japan definitely had agreed to quit, the principal objective of War Department activities ceased to be "redeployment" and became "demobilization." As noted in *Railway Age* last week, orders were immediately issued reducing the Army's procurement of munitions and supplies from \$2,400,000,000 per month to \$435,000,000 a month, a large part of which will be for food purchases, and further production of a vast range of materials was either completely halted or substantially reduced.

To explain further what steps the Army is taking to get back to a peace-time basis as rapidly as circumstances will permit, subject to the necessity of maintaining armies of occupation in enemy territory for an indefinite but presumably considerable period, General Brehon B. Somervell, commander of the Army Service Forces, Major General C. P. Gross, chief of transportation, Howard Bruce, A. S. F. director of material, and other officers, together with Brig. Gen. Charles D. Young, deputy director of the Office of Defense Transportation, held a press conference August 16 to report on the situation as it stood on that date.

Travel Load Still Heavy—So far as the railroads are concerned, it was apparent that while the Army expects to continue to tax their capacity to transport troops for some months to come, the military procurement "cutbacks" already ordered are looked upon as affording immediate relief—"today," as General Somervell put it—from freight congestion and possibilities of a breakdown on the western lines. General Young was inclined to go along with this estimate, but with the comment that sporadic car shortages might still be expected and that the extent to which the Army's expectations would be realized would continue to depend to a substantial degree on the railroads' manpower situation.

In the matter of passenger transportation, the O. D. T. deputy director was inclined to be perhaps a shade more confident than the Army officers that the carriers would handle the load without too much difficulty. This attitude was based, it was apparent, on the supposition that a decided drop in the volume of civilian rail travel might follow discontinuance of gasoline rationing, and was tempered with the

observation that no dependable forecast of conditions could be made until the early effects of this and other great changes in civilian circumstances, resulting from the end of the war, have been experienced.

A substantial decrease in railroad ton-miles and earnings was implied in the Army officers' analysis of the steps they had taken to reduce expenditures for supplies, at least for such time as is required for industry to convert to peace-time production. According to Mr. Bruce, the War Department has reduced its material requirements, as a result of the termination of hostilities, about 80 per cent, on a dollar basis, as compared to the post-V-E Day program. On individual materials, requirements are reduced as follows: carbon steel and alloy steel, 99 per cent; copper and aluminum, 98 per cent; cotton textiles, 82 per cent; wool, 78 per cent; yarn, 70 per cent; leather, 75 per cent; lumber, 75 per cent; and gasoline, 44 per cent.

Coal Less Scarce—As a further indication of the effect of the Army cutback on industrial activity, Mr. Bruce gave estimates that the cancellation of contracts as of August 14 would reduce industrial coal requirements over 145 million tons for the next 12 months, a reduction which is to be added to a "saving" of some 20 million tons resulting from production cutbacks ordered after V-E Day. While these figures were subsequently questioned by the War Fuel Administration, they made it appear that the possible deficit of 25 million tons of coal which was forecast for the coming winter would be more than covered by a decrease in industrial requirements, at least while conversion to civilian production is going on, and that some decrease in the tonnage of coal the railroads would be called on to move might be expected.

Referring particularly to the changes in the program for moving troops both in this country and overseas as a result of the Japanese surrender, General Somervell declared that to return soldiers to the United States for demobilization at the fastest possible rate, while at the same time moving replacements and supplies required for the maintenance of occupational forces abroad, will throw a "tremendous" burden on American ports and railroads. "I want to point out," he said, "that the public must not be too optimistic in anticipating an early return to peace-time conditions with respect to the use of our continental communications system, our railroads particularly."

Almost 5 Million Abroad—As explained in somewhat more detail by General Gross, there are now about 4¾ million Army troops overseas, in addition to Navy personnel. It is planned to return

(Continued on page 348)

War Controls Lifted by Federal Agencies

Record output of revocation orders in past week since war's end

Moving swiftly in the past week since the cessation of hostilities in the Pacific, the federal government's war agencies have turned out a record production of revocation orders in a seeming determination to make good on Reconversion Director John W. Snyder's promise that "wherever immediate removal of controls will help to get expanded production under way faster, they will be removed." The War Manpower Commission has lifted all manpower controls, the War Labor Board has greatly relaxed wage controls, and the War Production Board, having already revoked numerous controls, has announced that it plans to revoke the Controlled Materials Plan as a whole on September 30.

Reconversion Director Snyder's promise on the removal of controls was made in a report entitled "From War to Peace: A Challenge," which he submitted to President Truman last week. At the same time Mr. Snyder said that "wherever the removal of controls at this time would bring a chaotic condition or cause bottlenecks or produce a disruptive scramble for goods, controls will be kept and used." As Mr. Snyder put it, "the goal of our economy now that peace has come is in a sense the same as it was in war: production."

To help the reconversion process along, President Truman on August 18 issued an executive order "providing for assistance to expanded production and continued stabilization of the national economy during the transition from war to peace and for the orderly modification of wartime controls over prices, wages, materials, and facilities." Among other things, the order authorized W. L. B. to provide, as it has, that employers may, without obtaining approval, make wage increases "that will not be used in whole or in part as the basis for seeking an increase in price ceilings, or for resisting otherwise justifiable reductions in price ceilings." Also W. L. B.'s authority to approve increases to correct gross inequities was extended to cover "such increases as may be necessary to correct maladjustments or inequities which would interfere with the effective transition to a peacetime economy."

This "thaw" of the wartime wage "freeze" had been anticipated in Director Snyder's report. "As long as there is a threat of inflation the 'hold the line' stabilization program must be followed," he said. "Neither prices nor wages can be

(Continued on page 347)

Rapid Action Diverts Pacific-Bound Loads

Army turns around 5,400 cars and forwards 2,300 on new instructions

More than 110,000 tons of Army freight on the railroads had been turned back and diverted to holding and reconignment points and depots by August 20, as a result of the Japanese surrender, according to an August 22 statement from the War Department. Also diverted were more than 225,000 measurement tons of war cargoes aboard Pacific-bound ships in United States ports, while 11 freighters had been called back from sea and 39 vessels loading in the European theater or en route from there to the Pacific had been ordered back to this country.

Figures supplied by Major General Charles P. Gross, chief of transportation, Army Service Forces, revealed that the turn-around of the rail freight involved the diversion of 5,400 cars while another 2,300 cars, carrying for the most part clothing, medical supplies, recreation equipment, cleaning and preserving gear, and other supplies were halted, examined, and permitted to proceed. As reported in *Railway Age* last week, the first step in the turn-around was taken August 10, when the Association of American Railroads, at the Army's request, issued a stop-and-hold order covering all combat supplies. On August 14 the order was extended to cover all Army supplies except food and solid fuels.

"As the cars were halted," the War Department statement continued, "railroads immediately flashed details to the A. A. R. which, in turn, informed the Transportation Corps' Traffic Control Division in Washington. Working according to prearranged plan, control officers representing Army technical services and the A. A. R., furnished new shipping instructions, and in a matter of hours the cars were on their way to holding and reconignment points, depots or their original destinations. At the same time, ports of embarkation dispatched identity lists of rail cars already in ports to the Traffic Control Division by air courier and telephone for disposition."

In closing, the statement said that General Gross paid "special tribute" to the A. A. R. and especially to its Military Transportation Section, headed by J. J. Kelley, "which is performing a highly important and essential liaison job between the Army and American railroads."

Results of Recent Elections in Employee Representation

Meeting a challenge from the Brotherhood of Locomotive Firemen & Enginemen, the Brotherhood of Locomotive Engineers has retained its right to represent locomotive engineers of the International Great Northern, according to results of a recent election which has been certified by the National Mediation Board. The vote being 133 for the B. of L. E. to 82 for the B. of L. F. & E., the board certified that the

engineers desired no change in representation.

In three other recent elections at the Western Fruit Express Company, Fruit Growers Express Company, and Burlington Refrigerator Company, the Brotherhood of Railway Carmen, operating through the Railway Employees Department, American Federation of Labor, was chosen by mechanical department foremen (including supervisors of car cleaning and car repairs) with rank and title beneath that of general foreman. These employees were not previously represented.

Yardmasters of the Louisiana & Arkansas and mechanical department foremen and supervisors of the Chicago & Illinois Midland, both previously unrepresented, have chosen, respectively, the Brotherhood of Railroad Trainmen, and the American Railway Supervisors Association, Inc. The latter also obtained an election to determine the representation of Chicago Great Western roadmasters, but in that case the board found itself unable to make a certification for the reason that less than a majority of those eligible to vote cast legal ballots.

P. A. W. Asks Cut in Westward Movement of Oil

The Petroleum Administration for War disclosed last week that it has recommended discontinuance of shipments of crude oil from West Texas to California refineries. For several months, between 30,000 and 40,000 barrels a day of West Texas oil has been moved by rail to California in order to make use of idle refining capacity.

The difference in cost to the refineries due to the rail movement has been absorbed by the Reconstruction Finance Corporation on quantities required for the armed forces, Deputy Administrator Davies explained. It was pointed out that discontinuance of the rail shipments would not necessarily result in shutdowns in California refineries, since enough oil is en route and in storage there to supplement local sources.

Oil-Transport Subsidies Are Being Dropped

Immediate curtailment and early termination of subsidy payments on the transportation of crude petroleum and petroleum products was announced on August 22 by The Reconstruction Finance Corporation.

These subsidy payments were designed to maintain petroleum and petroleum product ceiling prices along the eastern seaboard area which was normally supplied by tankers from the Gulf Coast states, and to assure the maximum production necessary for the war effort. The subsidy, paid to East Coast importers, was based on the difference between tanker rates and the rates charged for rail, barge and pipe line transportation.

With the cessation of hostilities, the R. F. C. said, it is expected that a sufficient number of tankers can be returned to civilian use "to put the industry back on a normal transportation basis within the next few weeks." Commencing September 1 R. F. C. will, for a limited period of time, pay transportation subsidies only for exceptional movements certified as essential by the Petroleum Administration for War.

O. D. T. Relaxes Its Transport Controls

Frees trucks and buses of most war restrictions; rail relief on the way

Beginning promptly after the Japanese surrender, the Office of Defense Transportation has been "unwinding" its war controls over domestic agencies of transportation so rapidly since August 15 that it is already well on the way toward a point where full liquidation of its operations will be possible.

Because the effect on the railroads of the accelerated troop demobilization program of the armed forces and of the immense cut-back of orders for supplies and materials for government war agencies is still to be determined, the O. D. T. was not in a position to cancel at once and completely some of its most important restrictions on rail transportation—the prohibition of sleeping car runs less than 450 miles long, the convention ban, and the minimum load requirement for freight shipments, for example—but some of these orders already have been modified and further action in this respect is expected as rapidly as the rail traffic position becomes clear, it is understood.

Resort Trains Allowed—Operation of seasonal passenger trains to resort and vacation areas may be resumed, however, and scheduled trains with a seat occupancy of less than 35 per cent as of November, 1944, may be run, as a result of revocation of O. D. T. General Order 47, which was announced August 22. At that time it was pointed out that the order (No. 24) prohibiting the operation of special or excursion trains, except under O. D. T. permit, remained in effect without modification. Nevertheless, the O. D. T. went on to say, travel on passenger trains will be "uncomfortable" and "space will be at a premium for months to come," in view of the large space requirements of the military services.

Among revocations directly affecting the railroads the release of tank cars and tank trucks from O. D. T. control was among the first announced. Effective August 19 the O. D. T.'s General Order 7 and all accompanying special directions were canceled, entirely relieving the railroads from operating symbol oil trains or observing as mandatory O. D. T. routings for oil traffic. Under this regulation, some 75,000 tank cars at one time were exclusively engaged in the movement of oil into the East coast area served in time of peace by ocean tanker, and to obtain the utmost use of these cars shippers and receivers were limited to four hours for loading and unloading, while their use was prohibited for trips less than 200 miles.

At the same time, O. D. T. General Order 37 was canceled. This restricted the use of tank trucks for the transportation of petroleum products. On August 20, restrictions on the shipment of oil and petroleum products by inland waterway, including the Great Lakes, made effective by O. D. T. General Order 19, also were lifted.

This order in effect limited the use of water craft for the movement of petroleum to traffic covered by O. D. T. permits, and loading and unloading requirements were specified.

Meanwhile, on August 17, O. D. T. General Order 51 had been revoked. This had prohibited the shipment of bulk grain by rail or barge to New Orleans except under permit issued by that agency. As a result of the return of ocean tankers to the East coast oil movement, it was announced August 20 that the O. D. T. had declared surplus 132 wooden barges built for it for the movement of heavy oils. A majority of the 137 additional wooden barges built under this program are still in military service, according to the O. D. T. Of those declared surplus, 88 were used in the movement of fuel oil from refineries on the Texas coast to Florida, whence it was handled by rail to the Craney Island naval base in the vicinity of Norfolk, Va. In excess of 10 million barrels of oil have been transported in this movement since September, 1943, it was disclosed.

Can Load Deadheaded Cars—The first O. D. T. move to relieve restrictions on the use of passenger cars was effective August 17. This took the form of General Permit 12 under O. D. T. General Order 24, which order prohibits the operation of extra or special passenger trains or extra sections of regular trains. The effect of the permit is to allow the operation of extra or special trains or of additional sections of regular trains when such operations can be made by the use of equipment, previously used in the transportation of troops, that otherwise would be deadheaded. Such use of equipment, however, must not delay its return to military service.

The restrictions on group travel by train and on the sale of tickets or reservations through travel agencies for group travel which were put into effect by O. D. T. General Order 57 have been further modified, effective August 17, by General Permit No. 2, which permits group travel for business or professional purposes, or group travel from the United States to foreign countries, or from foreign countries to the United States (except that Canada and Mexico are not included in either case among the "foreign" countries), and which also allows the sale of tickets to travel agencies for such authorized group travel. As noted in *Railway Age* of August 11, page 258, group travel by children and supervisors returning from summer camps, or group travel when arranged by a government agency, previously had been permitted under a relaxation of the original order.

Convention Rule Eased—The first move toward eventual removal of the highly controversial O. D. T. "ban" on conventions, trade shows and similar gatherings was announced August 17, when it was stated that an out-of-town attendance at such meetings of not more than 150 persons would not require the approval of the O. D. T. committee on conventions. The previous limit on attendance requiring travel and hotel accommodations, except with an O. D. T. permit, was 50 persons. Although the limit was

raised to 150, O. D. T. Director J. Monroe Johnson called attention to the necessity of continuing to provide passenger train accommodations for returning troops in urging that convention travel be held to a minimum. Taking notice of published reports that the American Legion and Veterans of Foreign Wars were planning to conduct national conventions in Chicago on November 18 and October 2, respectively, Colonel Johnson said August 21 that neither organization had asked or obtained approval for such gatherings, and that it was impossible to relax further the restrictions on conventions until it was known how transportation capacity would measure up against the requirements of troop movements.

While the convention "ban" thus remained partially in operation, the O. D. T. announced August 17 that restrictions had been removed on holding state or local fairs, on the transportation of race horses and show animals (the effect of which is to allow full resumption of horse and dog racing), and on travel by professional, college and high school athletic teams. The prohibition of automobile racing, which had been instituted under O. D. T. General Order 14A, chiefly as a means of conserving gasoline and tires, also was removed, effective August 16.

Restrictions on the use of so-called rental cars, to which the railroads had given some encouragement before the war as a means of coping with private automobile competition, were revoked August 16 by cancellation of O. D. T. General Order 26A. The effect of this order had been to limit the number of such cars in use, and to restrict their operation under Office of Price Administration controls. A separate order, No. 46, establishing more rigid controls on rental cars at points in southern Florida, also was revoked.

May Replace Trains with Buses

One of the earliest O. D. T. general orders, No. 2, which went into effect on April 1, 1942, also has been revoked, effective August 31. This order prohibited the substitution of bus service for rail or street car service.

O. D. T. General Order 20A, which "froze" the number of taxicabs in operation in each city to the number operated on September 1, 1942, and also required group riding in taxicabs (except where local statutes prohibited it), limited the length of trips, prohibited "cruising," and prohibited the use of cabs for delivering merchandise, was revoked as of August 16. A related order, No. 22, which applied only to New York and brought about the elimination of nearly one-third of that city's taxicabs, while limiting the operation of the rest to within 5 miles of the city limits, also was revoked.

Sightseeing Service Allowed—The prohibition of the operation of sightseeing, charter or other special buses, which had halted such services in national parks and certain scenic and historic localities, as well as in most large cities, since June, 1942, has been revoked, effective August 31, by cancellation of O. D. T. General Order 10A. Bus operators now will be free to lease equipment for any special transportation service, and school buses may be used to

transport students to athletic events or for other purposes.

A major step toward full relaxation of O. D. T. control of motor truck operations was the revocation, effective August 16, of General Order 21A, which had applied to virtually all commercial bus, taxicab and trucking operations the so-called certificate of war necessity program, whereby the O. D. T. was able to govern the mileage that such vehicles might travel, regulate loads, control their use of gasoline, and require that various mileage conservation measures be taken. Certificates covering more than 5,200,000 commercial motor vehicles were issued during the life of this program, including 49,313 ambulances and hearses, 84,784 school buses, 78,717 taxicabs, 25,015 rental cars, 59,363 local and suburban buses, 21,753 inter-city buses, and 4,980,000 trucks, of which 1,650,000 were used for agricultural purposes.

Supplementing the revocation of the certificate of war necessity order, various related administrative orders also have been canceled, under which procedures were set up for the issuance, review, suspension, recall or revocation of certificates. Another related regulation, O. D. T. General Order 48, which restricted transfer or change in service of tank trucks used for the movement of milk or other fluid foods, also has been canceled. Controls over the use of trucks in Alaska have been set aside by revocation of General Orders 13 and 44A, effective August 31. Administrative Order 9, which required the nation's truck operators to file reports with the O. D. T., also has been canceled.

Through Buses Freed—Regulations governing inter-city bus operations have been revoked by the O. D. T. also, but such controls remain in effect until September 30, unless otherwise directed. This action has been taken by rescinding O. D. T. General Order 11 as of that date. Under it, inter-city bus lines were required to abandon all schedules which did not meet minimum average passenger load standards or which served "places of amusement." Routes were "frozen," and pooling of competitive or parallel bus operations and capacity loading of equipment were required under its provisions.

Cancellation of the O. D. T. order—No. 23—establishing a nation-wide 35 m.p.h. speed limit for automobiles was effective August 19, insofar as the O. D. T. was concerned, by revocation of that order, but further action by individual state or local authorities was required in some instances to make regional statutes conform. It was expected that this order, following the removal of all gasoline rationing requirements by the O. P. A., would stimulate a much larger use of private automobiles, which would have the effect of easing the burden on railway passenger facilities.

As a result of the elimination of a large number of O. D. T. controls over motor vehicle operations, 48 of that agency's Highway Transport Department district and field offices will be closed by the middle of September, it was announced, and the offices remaining open have been instructed to reduce their personnel. The regional offices, with the exception of Philadelphia, will remain open for the present.

Restrictions on the operation of excursion

steamers, pleasure boats and other "occasional craft," for which special O. D. T. permits have been required since Administrative Order 24 was issued April 22, 1944, have been removed by the revocation of that order.

I. C. C. Cancels Many Service Orders with War's End

Official announcement by President Truman of the Japanese surrender was followed by prompt cancellation by the Interstate Commerce Commission of a number of war-connected service orders, some of which had been in effect since 1942. Among these orders are the following:

No. 75. This order, issued May 22, 1942, suspended Car Service Rule 4 of the Association of American Railroads' Car Service Division as to delivery of freight cars to government-controlled vessels. The effect of this cancellation is to reinstate Rule 4 as to delivery to Seatrain Lines of cars whose owners have not consented to delivery of their cars to any water carrier. Practically all of the principal owners of cars, however, have filed such permission, and the Car Service Division is negotiating with others so that free use of all cars for loading via Seatrain will be authorized.

No. 94. Effective November 2, 1942, this order required diversion to the Union Pacific from the Western Pacific of coal moving to Oregon and Washington from Colorado and Utah points via Salt Lake City, Utah, or Ogden.

No. 98. Effective November 28, 1942, this order required diversion to the Union Pacific from the Southern Pacific of shipments of coal substantially identical with those affected by No. 94.

No. 132. Under this order, carriers were required to establish half-stage icing service by July 5, 1943. Cancellation leaves continuance of this service optional with the carriers.

No. 154. This order, effective September 23, 1943, prohibited the Chicago, Attica & Southern from moving off its rails cars or locomotives of its ownership. It was issued at a time when this road's owner allegedly was preparing to abandon operation without the commission's authority.

No. 171. Effective December 28, 1943, this order required that shipments of bauxite ore concentrates in trainloads be forwarded from Mobile, Ala., within 24 hours after loading.

No. 173. This order, effective January 4, 1944, prohibited circuitous routing of carload freight from Monroe, La., or West Monroe to points east of the Mississippi river.

No. 177. Effective January 11, 1944, this order required railroads to accept orders for the reconsignment or diversion of coal from agents of the Solid Fuels Administration.

No. 288. This order, which was effective February 27, 1945, prescribed specifications for the packing and loading of shell eggs.

No. 334. Issued at the request of the Office of Defense Transportation to "implement" that agency's restrictions of fairs and horse racing, this order, effective July 11, strictly limited the transportation of horses and other animals chiefly valuable for racing and exhibition.

Applications were filed with the commis-

sion on August 17 for the cancellation of various other service orders, but the petitions were denied. Among these were the request of the Minneapolis Traffic Association for such action on No. 242-B (which provides for increased demurrage charges on shipments in closed box cars) insofar as it applies to grain, flaxseed and soybeans received at Minneapolis.

Also denied was the petition of the National League of Wholesale Fresh Fruit & Vegetable Distributors, seeking cancellation of 13 different service orders affecting the movement of the commodities in which the organization's members deal. Three of these orders were described as making "accessorial service restrictions," one (No. 180) applies super-demurrage charges on refrigerator cars, and most of the remaining 9 restrict icing and cooling of cars.

The life of revised Service Order No. 107, which limits the movement of freight cars into Mexico, has been extended to March 1, 1946, by Amendment No. 1 thereto, effective September 1. C. S. D. Embargo No. 400, which requires permits for handling carload shipments moving to or via the National of Mexico, will continue in effect as a means of applying the provisions of this order.

War Controls Lifted by Federal Agencies

(Continued from page 344)

given free rein while scarcities prevail on a wide front. Collective bargaining will be restored, with safeguards to protect the stabilization program. Wage adjustments which will not increase prices will be permitted. Where necessary to raise substandard pay scales, relieve hardships from severe declines in take-home pay, and stimulate increased production of essential products, both wage and price adjustments will be granted."

Outlining Office of Price Administration plans in a statement issued last week, Administrator Chester Bowles warned against the threat of inflation which he said "will hang over us until reconversion is in high gear and goods are flowing freely." Thus, Mr. Bowles went on, the O. P. A. program during the next six months "must be a skillful combination of firm courageous controls in those areas where they are needed to curb inflation, together with flexibility, speed, relief from individual hardships, and prompt de-control where there is a safe balance between supply and demand."

The revoked manpower controls, Director Snyder said in his report, will be supplanted by a plan of "voluntary community action to speed reconversion." The United States Employment Service, he added, will be made available to all employers; and it will cooperate with labor-management committees and community groups "to develop and carry out programs for recruitment of workers for industries whose immediate expansion is vital to reconversion."

The foregoing comments on wage and manpower controls were included in the "questions and answers" section of Director Snyder's report. There also was this question: "Will the load on transportation

facilities be lightened now?" The reply was as follows:

"The passenger load on the railroads and buses will not be lightened for some time, and may even increase with mounting demobilization rates. Restrictions on railroad passenger travel are not expected to be lifted in the immediate future. The major relief in sight is that afforded by the greater use of private automobiles which will come with the end of gasoline rationing. The movement of freight over railroads is expected to continue heavy for several months."

The War Production Board's announced determination to revoke the Controlled Materials Plan as a whole on September 30 would relieve railroads and other transportation agencies from controls that would have been involved in the fourth-quarter steel allocations announced on August 11 by the Office of Defense Transportation and reported in the *Railway Age* of August 18, page 308. Meanwhile, as W. P. B. has announced, all third-quarter non-military allotments remain valid. The military ratings were dropped on August 17 in connection with the cancellation of war production contracts.

In the latter connection W. P. B. Chairman J. A. Krug this week urged manufacturers whose military contracts were abrogated to cancel promptly their own orders for "bottleneck" items. Listed among such items were sheet and strip steel, structural steel, grey and malleable iron castings, lumber, shipping containers, and electric motors. "It is vital," said Mr. Krug, "that orders for these materials which were placed to fill military contracts and which are no longer needed be canceled with the utmost speed."

Meanwhile, Mr. Krug also announced this week that W. P. B. had dropped 210 additional individual controls "in a sweeping series of moves to facilitate the reconversion of industry and speed the flow of a wide variety of peacetime products into the hands of consumers, while still avoiding price inflation, preemption of scarce supplies, or a buyers' scramble." Among the controls thus removed were those on the number of trucks that could be manufactured for civilian use; L-88, relating to used rail and used rail joints; E-1-b, relating to machine tools; and T-1, which was designed to eliminate cross-hauling in the interest of transport conservation.

Railroad Radio Operators Need No Licenses

Railroad employees will not be required to hold operator licenses to operate radio equipment which may be installed by the carriers, according to Order No. 126 issued by the Federal Communications Commission on August 21. The order was an exercise of the commission's authority to waive the licensing provisions of section 318 of the Communications Act of 1934 in cases where it finds that the public interest, convenience or necessity will thereby be served.

The action, coming in response to a petition from J. J. Pelley, president of the Association of American Railroads, was taken "to facilitate the use of radio for increased efficiency and safety in railroad operations," the commission's announce-

ment said. Mr. Pelley's petition had stated that the number of Class I railroad employees who might be required to use radio transmitting equipment in connection with their duties totals 463,568, and that this total would be increased by inclusion of Class II and III railroad employees.

The A. A. R. has prepared for the adoption of its member roads what the commission's order calls a "comprehensive set" of Railroad Radio General and Operating Rules governing the use of transmitting equipment. In this connection the commission has approved a procedure whereby prospective operators among railroad employees will be examined on these A. A. R. rules by railroad examiners. This will be in lieu of the commission's own examinations.

The order contained several conditions, including a requirement that adjustments to the transmitting apparatus must only be made by duly licensed operators. Another condition limits the order to employees of roads which have adopted the A. A. R. rules, although there is provision for modification by individual roads if they first obtain written approval from the commission. The first examination of a prospective operator must be conducted prior to his operation of any transmitting apparatus, and re-examinations are required at intervals not in excess of two years.

Also the order applies only to roads which "maintain suitable records showing the name and position of all employees who have been examined . . . the date of the employee's last successfully completed examination and the name of the railroad examiner." Finally, the railroads' radio equipment "shall be so designed that none of the operations necessary to be performed during normal use of the equipment may result in any unauthorized radiation."

How Army's Cutbacks Will Affect Carriers

(Continued from page 344)

practically all of these soldiers to the United States by the end of next June, although the exact number will depend upon how many men are required to occupy enemy territory and maintain other overseas installations. The occupational forces will be made up largely of new men, as it is planned to return to this country for discharge those men in the units still stationed abroad who have enough "points" for such disposition. As a result, it is expected that an inbound peak load of "well over ½ million troops per month" will be reached in a few months, probably by the end of the year.

"Every available means of transportation will be utilized to its utmost capacity in accomplishing the return to the United States of American soldiers," General Gross explained. "The flow of troops home will be on a greater scale than has ever before been experienced. Despite the heavy return movement of troops from the Pacific, our troops in Europe will also be speeded home more quickly . . . because some of the shipping now in the Pacific can be restored to the Atlantic service. The War Department is collaborating with the Office of Defense

Transportation and the Association of American Railroads to insure that all facilities in the United States are coordinated in meeting the tremendous transportation problems that are before us. All of us at home must be prepared to accept inconveniences in order that the reunion of families in peace may be accomplished as quickly as possible."

"Redeployment" Moves Ended —

While the peak movement so far for the return of troops from Europe has been in the general area of 350,000 men per month, the magnitude of the troop transportation task ahead of the railroads is not directly proportional to the increase in the rate of return which General Gross predicted, it was pointed out, since the number of trips per man in this country will be substantially reduced, in a great majority of cases, under the changed conditions following the end of hostilities. While it was the Army's pre-V-J Day practice to send men not eligible for discharge to their homes for a 30-day furlough, then return them to camps for further training and organization into new units and finally to move them via West coast camps to Pacific ports, such "redeployment" moves will be largely eliminated, and a much greater percentage of the men who make trips home now will be traveling as discharged veterans rather than on furlough. At the same time, the number of newly drafted men being taken to training camps and eventually moved to the ports has been reduced.

To facilitate the speedy "separation" of men whom the Army no longer needs, plans have been made to open five additional "separation centers" in addition to the 22 now in operation, the locations of which were given in *Railway Age* of May 19, page 908. The additional centers will probably be Fort Custer, Mich.; Fort Monmouth, N. J.; Fort Riley, Kan.; Camp Wolters, Tex.; and Camp Haan, Calif., according to Maj. Gen. J. E. Dalton, deputy director of personnel, A. S. F. He also gave assurances that all enlisted personnel in the A. S. F.—of which the Transportation Corps is a part—who have sufficient "points" will be discharged by August 31, except those who volunteer for further service and a few whose particular abilities fall within the War Department's "critical" list.

These explanations of the Army's plans followed a general outline by Secretary of War Stimson of the demobilization program put into effect as soon as the war in the Pacific ended. To carry out this program, he pointed out, "more men will have to be moved in less time and over longer distances than ever before." For the present, particularly until the occupation of Japanese territory has proceeded to the point where uprisings or treachery can be handled "inexorably and completely," the system of discharging enlisted men who have 85 "points" or more will be continued, the secretary said. Later, a revised system will become effective to insure that discharges proceed "at the highest rate permitted by transportation."

Who Gets Free First—The aim, he continued, will be to give first consideration for discharge to those who have served the longest, or under the most arduous condi-

tions. In addition, all enlisted personnel 38 years of age or older will be eligible for discharge within 90 days after application. There has as yet been no change in the system set-up for the discharge of officers, under which preference is given those with the longest or most difficult service.

Orders Wharfage Allowance for Army at Norfolk

Wharfage and handling services on Army export freight moving through Norfolk, Va., must be provided by the railroads or the carriers must pay the Army an allowance for performing the services itself, the Interstate Commerce Commission has ruled in a report by Division 2. The commission's decision in the No. 29117 proceeding has thus rejected Examiner William A. Disque's proposed report (see *Railway Age* of January 13, page 165) which had recommended that the complaint be dismissed.

The commission's report represents the view of Commissioners Splawn and Rogers, while Commissioner Barnard dissented. The decision awards reparations on the basis of four cents per 100 pounds (plus interest) the four cents being the amount railroads absorb on export traffic passing over public piers at Norfolk.

The controversy arose in June, 1942, when the Army took over the operation of certain Norfolk piers where the railroads had formerly paid allowances or absorbed wharfage and handling charges. When the Army took over, the carriers refused to continue such allowances and absorptions, it being their contention, among others, that the Army was a private pier operator; and it had not been railroad practice to perform handling services or grant allowances therefor on private piers.

Examiner Disque found evidence to the effect that the Army did not want railroad employees on the piers, and thus, he held, an allowance was not justified because the carriers did not have the alternative of performing the services themselves. In electing to operate the piers, he said, the Army was in the role of a volunteer; and "the volunteer gets no pay." The commission, on the other hand, found no evidence that the officers in charge of the Army piers "did or would refuse to allow [the] service to be performed by defendants, had they so offered."

In the latter connection, the majority report cited the Army's written request of May 22, 1943, asking the railroads to perform the services. Upon receipt of this request, it was the duty of the railroads to arrange for performance of the services "within a reasonable time thereafter, not later than July 1, 1943," the report said. Examiner Disque had called this May, 1943, request "a gesture to afford a basis for a contemplated formal complaint."

In view of its finding that the railroads were obligated to perform the service or grant allowances, the commission found it unnecessary to consider another phase of the Army complaint which asked that the carriers be required to publish separately the wharfage and handling portions of their rates to Norfolk. This proposal was opposed by intervening North Atlantic port

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interests "on the ground that it would disrupt the long-standing rate relations among the various competing ports."

Dissenter Barnard thought the complaint should have been dismissed. The four-cent allowance, he said, would reduce rates, already less than reasonable maximum rates, still further below the upper limit of reasonableness.

He thought also that the railroads may not be required to provide a wharf or to handle the freight on the Army piers, and thus they should not be compelled to pay an allowance in lieu thereof. For the latter view, Mr. Barnard relied on the commission's report in the terminal services phase of the general investigation of railroad practices.

Tariffs Must Cover All Service of Rail-Owned Switching Line

Tariff-publishing requirements of the Interstate Commerce Act's section 6 "contain no exception in favor of a common carrier whose stock is owned exclusively by other common carriers," and thus the Minnesota Transfer must file with the Interstate Commerce Commission tariffs covering its charges for switching between its proprietary carriers and between industries on its lines and the lines of such proprietary carriers. Division 3 of the commission has so ruled in a report in I. & S. Docket No. 5319 which involved suspended schedules whereby the line-haul carriers serving Minnesota Transfer sought to pay an allowance of \$1.60 per loaded car to the Central Warehouse Company there for handling cars into and out of its property, including the empty movement.

Hearings brought out the fact that the Minnesota Transfer published tariffs covering only charges for intraterminal switching, but not charges for services rendered to its proprietors. The terminal line, as the commission put it, "seeks to justify its failure to comply with section 6(1) on the theory that it is a mere agency of respondents because they own its entire stock in equal quantities and because one of its by-laws provides in effect that the ownership in severality of stock issued to any railroad company or corporation shall entitle such railroad to equal joint and impartial use" of M. T. facilities while denying switching services to non-stockholders except at an "arbitrary charge."

With citations from pertinent prior decisions, the commission rejected the foregoing contention, finding that the transfer company is a common carrier (M. T. did not contend that it is not); and ordering it to comply with section 6 "by publishing rates for all transportation services it performs and holds itself out to perform."

With respect to the allowance phase of the case, the commission pointed out that the line-haul carriers involved reached the properties of the Central Warehouse Company only over the lines of M. T. In other words, the proposed allowance would not be paid by the delivering line, and it would thus be an "overhead" allowance of the kind found unlawful in *Propriety of Operating Practices—Terminal Services*, 209 I. C. C. 11. The suspended schedules were ordered canceled and the proceeding discontinued.

Equipment and Supplies

LOCOMOTIVES

Railroads Are Now Operating 3,202 Diesel Locomotives

According to statistics compiled by the *Railway Age*, there were 3,202 Diesel locomotives in service on domestic railways as of June 30, 1945, including 2,791 owned by class I railways, excluding terminal and switching companies, and 411 owned by terminal and switching companies and class II and III roads. Class I roads were operating 642 Diesel road locomotives having a total of 2,047,590 hp. and 2,149 switchers with a total of 1,725,038 hp.

Diesel Locomotives in Service on Class I Railways—June 30, 1945

Horsepower	Freight Locomotives		Passenger and Comb. Pass. & Frt. Locomotives		Totals	
	No.	Total Hp.	No.	Total Hp.	No.	Total Hp.
5,400	216	1,166,400	11	59,400	227	1,225,800
4,050	6	24,300	1	4,050	7	28,350
3,600			2	7,200	2	7,200
2,700	25	67,500	10	27,000	35	94,500
2,000			301	602,000	301	602,000
1,800			31	55,800	31	55,800
1,200			7	8,400	7	8,400
1,000	8	8,000	14	14,000	22	22,000
380	8	3,040			8	3,040
Less than 380	2	500			2	500
Total Road Locos.	265	1,269,740	377	777,850	642	2,047,590
Switching Locos.		(Average 803 Horsepower per Locomotive)			2,149	1,725,038
Total Rd. & Sw. Locos.					2,791	3,772,628

Note:—411 Diesel locomotives of 286,660 total horsepower are estimated to be in service on switching and terminal companies and on Class II and III railroads.

There were 271 Diesel locomotives installed during the first six months of 1945, including 25 5400-hp., five 4050-hp. and 21 2700-hp. freight locomotives; 81 2000-hp. passenger and combination passenger and freight locomotives and 139 switchers averaging 824 hp. The distribution by horsepower of Diesel locomotives on Class I railroads as of June 30, 1945, is shown in the accompanying table.

FREIGHT CARS

The BALTIMORE & OHIO has ordered 350 steel covered hopper cars of 70-ton capacity from the American Car & Foundry Co. The inquiry for this equipment was reported in the *Railway Age* of August 11.

The DENVER & RIO GRANDE WESTERN has ordered 200 steel ballast cars of 70 tons capacity from the American Car & Foundry Co. The inquiry for this equipment was reported in the *Railway Age* of August 11.

SIGNALING

The BOSTON & MAINE has contracted with the General Railway Signal Company for materials and labor to install Type KM10 centralized traffic control on 14 miles of road between Soapstone, Mass., and Williamstown. This installation includes 11 miles of double-track and three miles of three-track. The 94-in. control machine, to be located at North Adams, Mass., will have 37 track indication lights and 36

levers to control 24 switch machines, seven switch locks and 31 signals. The longest individual control will be 10 miles. Telephone circuits will be superimposed on the C. T. C. lines. Equipment ordered includes Type B relays and racks, Type SA high and dwarf signals, Models 5C and D switch machines, and steel bungalows. This installation will replace two mechanical interlockings, three remote control locations and one table interlocker with hand-thrown switches. The territory embraces about 10 miles of electrified zone, including five miles with coded track circuits through the Hoosac tunnel. Type B relays, Type SA high and dwarf signals, Models 5C and D switch machines and steel bungalows will be used. At Petersburg Junction, N. Y., an all-relay electric interlocking will control three switch locks and eight signals. Automatic block signals will be

installed on 15 miles of double-track road between Williamstown, Mass., and Hoosick Junction, N. Y. Ten of these blocks will incorporate coded track circuits.

Supply Trade

The R. D. Wood Company has moved its Philadelphia, Pa., offices to the Public Ledger Building, Independence Square.

The E. H. Scott Radio Laboratories, Inc. has changed its name to the Scott Radio Laboratories, Inc.

Roland W. Burt, eastern manager of railroad sales, has been appointed manager of the Tubular Products division of Joseph T. Ryerson & Son, Inc., with headquarters in Chicago.

The Philadelphia, Pa., division of the Yale & Towne Manufacturing Co., has been awarded the Army-Navy "E" for the third time for high achievement in the production of war material.

Hobart C. Ramsey, executive vice-president of the Worthington Pump & Machinery Corp., has been appointed also president of the Ransome Machinery Company, a Worthington subsidiary. J. G. Ten Eyck, who has just completed five years of active service with the U. S. Navy and who formerly was president of the industrial engineering firm of Ten Eyck, Inc., has been appointed vice-president and gen-

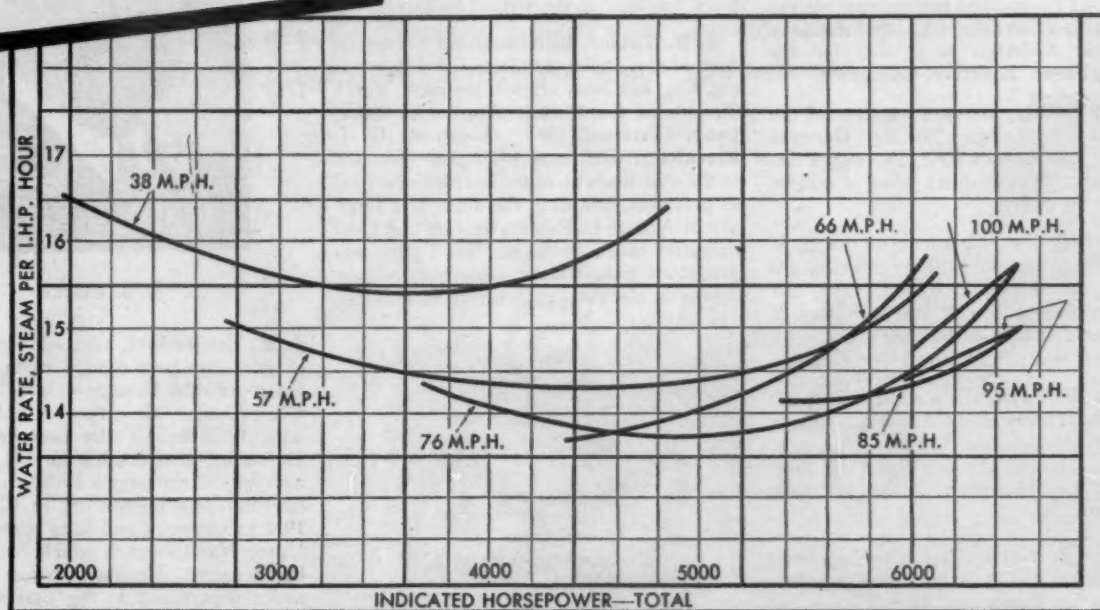
STEAM PER HORSEPOWER HOUR

The Franklin System of Steam Distribution

applied to

The Pennsylvania Railroad's

T-1 Locomotives



IN a paper read before the New York Railroad Club on May 17, 1945, describing the Pennsylvania Railroad's T-1 Locomotive, Chief Engineer Ralph P. Johnson of the Baldwin Locomotive works stated:

"The minimum water rate was 13.6 pounds at a speed of 76 miles per hour and 20 percent cut-off. In most of the tests the water rate was between 14 and 15.5 pounds.

"In 40 years of testing on the Altoona Test Plant, this locomotive gave the lowest water rate."



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK • CHICAGO

In Canada: FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL

eral manager of Ransome and **Kenneth W. Horsman**, formerly superintendent of welding and steel fabrication at Worthington's Harrison, N. J., works, has been transferred to Ransome as works manager.

F. A. Wright has been appointed assistant general sales manager of **Cutler-Hammer, Inc.**, Milwaukee, Wis. Mr. Wright has been associated with Cutler-Hammer since 1927.

The Chicago district plants of the **Youngstown Sheet & Tube Co.** have been awarded a third star to add to their Army-Navy "E" pennant for high achievement in the production of war material.

Ralph R. Brady, for the past three years manager of commercial engineering for the lamp division, has been appointed manager of electric discharge lamp sales for the **Westinghouse Electric Company**.

Henry I. Guy, assistant manager of the transportation divisions at the **General Electric Company's** Erie, Pa. works has retired after more than 40 years of service with the company.

E. A. Lofquist, a graduate of the U. S. Naval Academy and until recently on active duty as a captain in the Navy, has been appointed a special representative of the **American Car & Foundry Co.** sales department with headquarters in Chicago.

Ralph W. Payne of Washington, D. C. and **E. A. Thonwell** of Atlanta, Ga. have been appointed to the sales force of the **Malabar Machine Company**, product division of the **Menasco Manufacturing Company**.

Robert F. Nelson has been appointed vice-president and assistant to the president of **R. G. Le Tourneau, Inc.**, Peoria, Ill. Mr. Nelson formerly was vice-president and director of the **Arma Corporation**, Brooklyn, N. Y.

Remington Rand, Inc. has announced the removal of the executive, sales, merchandise and pricing departments of the systems division from Buffalo, N. Y. to new offices located in the Remington Rand building in New York.

Wilfred C. Bohling has been appointed manager of the New York office of the **Delta-Star Electric Company** of Chicago. The territory served by this office includes western Connecticut, southern New York and northern New Jersey. Mr. Bohling has been associated with the electrical industry in the New York area for a number of years.

Russell D. John has been appointed general sales manager of the **Adams & Westlake Co.** with headquarters in Elkhart, Ind. Mr. John joined the company as a salesman in the southeastern territory in 1926. He was appointed eastern manager in charge of the company's New York office in 1936. **Fred C. Rauch** has been appointed to succeed Mr. John as eastern manager.

William H. Eichengreen, assistant manager of the sales promotion division of the **Inland Steel Company**, has been pro-

moted to manager of the commercial research division which has been created as a new division of the firm's sales department. His headquarters will be in Chicago. Mr. Eichengreen joined **Inland Steel** in 1931 and spent several years in the company's pricing and sales promotion divisions.

R. G. LeTourneau, Inc., Peoria, Ill., has announced plans to establish a branch factory in England to serve that country and the European continent. **Brig. W. E. R. Blood**, in charge of the British army engineers' headquarters at Washington, D. C., has been appointed managing director designate of the new branch and **Maurice Foote**, superintendent of LeTourneau's Peoria plant, has been appointed plant manager of the British factory.

S. B. Taylor, manufacturing vice-president of the **Reliance Electric & Engineering Co.**, has been elected president and a director of the **Parker Appliance Company**, Cleveland, Ohio, to succeed **H. I. Markham**, who, until his recent elevation to the chairmanship of the board, had served as president, following the death last January of **Arthur L. Parker**, founder and chief executive of the company. Mr. Taylor was graduated from **Purdue University** with a degree in electrical engineering in 1924 and



S. B. Taylor

studied business administration for an additional year at **Illinois University** before joining the engineering department of the **Reliance Electric & Engineering Co.**, in 1925. He was appointed works manager in 1931 and elected a director of the company in 1935. He was appointed manufacturing vice-president in March, 1943. Mr. Markham, who is a partner in the investment banking firm of **Paul H. Davis & Co.**, Chicago, has been associated with **Parker Appliance** since 1940, and has been vice-president of the company since 1942.

Barlow Brooks, until recently manager of sales and development of **Kinthead Industries, Inc.** of Chicago, has been appointed manager of a finished formed shapes division organized by the **Reynolds Mills Company** with headquarters in Louisville, Ky. Mr. Brooks attended **Illinois University** and the **State Trade School** at Bridgeport, Conn. He joined the **Standard Coupler Company** and after five years was appointed western sales representative with

offices in Chicago. Later he was employed as flooring buyer with the **Montgomery Ward Company**. He joined **Kinthead Industries** in 1935 and was manager of that company's sales and development when he joined **Reynolds** in April 1945.

N. J. Clarke, vice-president in charge of sales, has been elected senior vice-president of the **Republic Steel Corporation** and



N. J. Clarke

J. M. Schlendorf, assistant vice-president of sales, has been elected vice-president in charge of sales to succeed Mr. Clarke. Mr. Clarke began his career as an office boy with the **Bourne-Fuller Company** in 1897. He was appointed salesman and later manager of the company's **Pittsburgh, Pa.**, office and was transferred to **Cleveland** in 1912 as secretary and sales manager of the **Upson Nut Company** which **Bourne-Fuller** had acquired. He was a major in the ordnance department in the first world war, after which he returned to **Bourne-Fuller** as vice-president and general manager. He organized and became president of the **Lake Erie Bolt & Nut Co.** in 1919. He was appointed vice-president in charge of sales for



J. M. Schlendorf

Republic in September, 1930, shortly after the corporation was formed. Mr. Schlendorf was employed with the **American Sheet & Tin Plate Co.** from 1905 to 1915. During the next two years he was assistant purchasing agent of the **Willys-Overland Company** and in 1917 was appointed vice-

when the job is **TOUGH**

Hauling today's long trains at sustained high speeds calls for heavy fuel consumption — and fuel is a vital commodity.

To secure maximum power from every ton of coal burned, a com-

plete brick arch in the firebox should always be maintained.

When that arch is of Security arch brick, a maximum length of service and low maintenance costs are assured.



**HARBISON-WALKER
REFRACTORIES CO.**
Refractories Specialists



AMERICAN ARCH CO. INC.
60 East 42nd Street, New York 17, N. Y.
Locomotive Combustion Specialists

president in charge of sales of the Central Steel Company, Massillon, Ohio. He continued in that position when Central Steel and the United Alloy Steel Corporation merged in 1926 to form the Central Alloy Steel Corporation. When that company became a part of the Republic Steel Corporation in 1930, he was appointed manager of sales of the alloy steel division. He was appointed assistant vice-president in charge of sales in 1936.

The **Farnsworth Television & Radio Corp.** has acquired all of the assets of the **Halstead Traffic Communications Corporation**. Most of the key personnel of the Halstead organization have been added to the Farnsworth staff. **William S. Halstead**, president of the Halstead company, will serve Farnsworth as consulting engineer on radio communications equipment and traffic control as well as on other phases of electronics. **John A. Curtis**, vice-president of Halstead and chairman of its management committee, has been appointed manager of the Farnsworth Communications division. Farnsworth plans to transfer to its Fort Wayne, Ind., plant the Halstead engineering staff as well as that company's laboratory and manufacturing facilities, which heretofore have been in New York.

Adolph G. Hochbaum has been appointed managing director for exports to the U. S. S. R. and general sales representative for central and eastern European countries for the **Baldwin Locomotive Works**. Mr. Hochbaum has been associated with Baldwin since January 1, 1939, handling various products for Russia. He was graduated from the University of Prague, Czechoslovakia and began his career as an engineer with the metallurgical works at Tzaritzyn on the Volga. He returned to Czechoslovakia representing the Vitkovice Mine, Steel & Iron Corp. in 1918. Shortly thereafter an organization was set up in Czechoslovakia under his guidance for the export of steel products, heavy machinery and armament to Russia and eastern European countries and for nineteen years he represented the entire Czechoslovakian steel and machine industry, including the Skoda Works.

The functions of the **Armco Railroad Sales Company**, a wholly-owned subsidiary of the **American Rolling Mill Company**, have been discontinued. The company's sheet and wheel business has been transferred to the American Rolling Mill Company and its drainage and fabricated products in the railroad field will be handled by the **Armco Drainage & Metal Products, Inc.**, another wholly-owned subsidiary. All of the Armco Railroad Company's key men and clerical force will become part of the American Rolling Mill organization. The following changes have been made: **Logan T. Johnson**, president and general manager, has been appointed administrative assistant to the sales manager of the American Rolling Mill Company; **H. M. Arrick**, district manager in St. Louis, Mo., has been appointed district manager of Armco in St. Louis; **Robert Y. Barham**, district manager in Chicago, has been appointed assistant district manager of Armco in Chicago; **G. Russell Betts**, salesman in the

Chicago office, has been appointed manager of railroad sales, O'Neill division, **Armco Drainage & Metal Products, Inc.**, Chicago; **Charles M. Colvin**, sales engineer, Berkeley, Calif., has been appointed sales engineer, **Armco Drainage & Metal Products, Berkeley**; **W. N. Crout**, district manager in Cleveland, has been appointed assistant district manager for Armco in Cleveland; **W. P. Lipscomb**, district manager, Richmond, Va., has been appointed Armco's representative in Richmond; **N. A. Powell**, district manager, Houston, Tex., has been appointed manager of railroad sales, southwestern division, **Armco Drainage & Metal Products, Houston**; **W. O. Robertson**, district manager, Philadelphia, Pa., has been appointed manager of railroad sales, eastern division, **Armco Drainage & Metal Products, Philadelphia**; **K. A. Smith**, district manager, Berkeley, Calif., has been appointed district manager, **Armco Drainage & Metal Products, Berkeley**; and **James L. Turvey**, salesman, New York, has been appointed a salesman for Armco in New York.

The **Aro Equipment Corporation**, Bryan, Ohio, has announced the appointment of eleven new jobbers to handle the line of Aro industrial pneumatic tools. These include **Rudolf Bass** of New York, under the supervision of A. B. Schuhl, local division manager in the territory; the **Quality Mills Supply Company**, Columbus, Ind., under George W. Gille & Sons, local division managers; the **Range Auto Parts**, Johnson City, Tenn., under the McEwen Cherry Company, local division managers; the **Motor Parts & Equipment Co.**, LaCrosse, Wis., under J. M. Mase, local division manager; the **Morley-Murphy Company**, Green Bay, Wis., under C. D. Haven, Jr., local division manager; **Equipment Sales and Service** and the **Washington Machinery & Supply Co.**, both of Spokane, Wash., under Jack J. Kolberg, company representative; the **Casey Tractor & Equipment Co.**, Portland, Ore., under J. R. Towan, company representative; the **T. L. Kuhns Company**, Salem, Ore., also under J. R. Towan; the **Auto Dealers Supply Company**, Los Angeles, Calif., and the **Craft Shop**, San Diego, Calif., under the Burlyn Company, local division managers in the territory.

John N. Thorp, eastern distributor of construction equipment, machinery and railway supplies, has been appointed representative of a new railway division formed by the **Cleveland Pneumatic Tool Company**, Cleveland, Ohio, with eastern headquarters in New York. After serving as an airplane pilot with the rank of major in the first world war, Mr. Thorp joined the Erie's engineering staff as a transitman and later was promoted to track supervisor of the Greenwood Lake division and Newark branch. Subsequently he was appointed special representative to the road's general manager. He served as special representative in the Ingersoll-Rand Company's railroad and construction department for 12 years and later as manager of the construction equipment division of the Chicago Pneumatic Tool Company for 8 years, prior to forming his own firm, the **John N. Thorp Company**.

OBITUARY

Charles W. Burns, who retired in October, 1937, as assistant to the mechanical superintendent of the Pullman Company, died at his home in Muskegon, Mich., on August 9.

Construction

NORTHERN PACIFIC.—This road has awarded a contract to the **Al Johnson Construction Company**, Minneapolis, Minn., for the construction of a 16-stall engine-house and a 135-ft. turntable at Helena, Mont. The cost of the project will be approximately \$480,000.

Financial

FLORIDA EAST COAST.—*Reorganization Expenses.*—Division 4 of the Interstate Commerce Commission has approved maximum allowances for compensation and expenses for the period from October 1, 1942, to February 15, 1945, in connection with this road's reorganization under section 77 of the Bankruptcy Act. Of total claims for \$203,132 the division approved \$105,001. Among the larger amounts approved, **Davis Polk Wardwell Sunderland & Kiendl**, counsel for the first and refunding mortgage bonds committee, received \$10,987 on a claim for \$15,987; **Giles J. Patterson**, counsel for the St. Joe Paper Co., \$20,000 on a claim for \$40,000; **Pitney, Hardin & Ward**, counsel for S. A. Lynch and others, \$9,402 (subject to further consideration) on a claim for \$16,409; **Fleming, Jones, Scott & Botts**, counsel for the institutional group for first mortgage bonds, \$10,651 on a claim for \$36,276; and **Milam, McIlvane & Milam** and **Percival E. Jackson**, counsel for the independent committee for first mortgage bonds, \$10,638 on a claim for \$29,638.

GULF, MOBILE & OHIO.—*Promissory Notes.*—This company has asked the Interstate Commerce Commission for authority to issue \$154,216 of promissory notes in connection with its acquisition, under a lease-purchase agreement with the **American Locomotive Company**, of two Diesel-electric road switching locomotives.

ILLINOIS CENTRAL.—*New Director Elected.*—**Stephen Y. Hord**, a general partner in the financial firm of **Brown Brothers Harriman & Co.**, has been elected a member of the board of directors of the Illinois Central, succeeding **George A. Ellis**, who has resigned.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE.—*New Director Elected.*—**H. E. Atwood**, president of the First National Bank of Minneapolis, Minn., has been elected a member of the board of directors of the Minneapolis, St. Paul & Sault Ste. Marie, succeeding **Lyman E. Wakefield**, deceased.

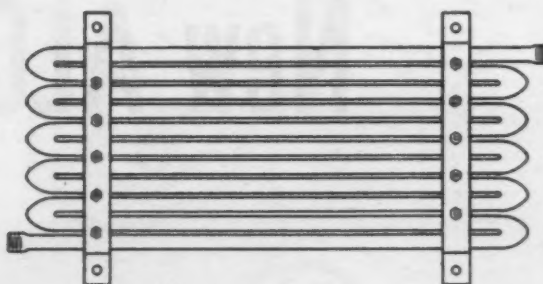
MISSOURI PACIFIC.—*Reorganization Expenses.*—Division 4 of the Interstate Commerce Commission has approved maximum allowances for compensation and expenses for the period from July 9, 1940, to Jan-

Elesco CAB HEATER COILS

A product of machine-die-forging.

One piece from end-to-end and no possibility for leaks.

In two sizes, ready to install.

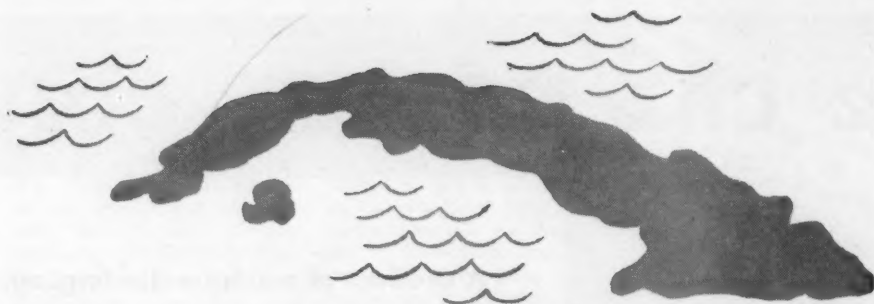


THE SUPERHEATER COMPANY

Representative of AMERICAN THROTTLE COMPANY, INC.
60 East 42nd Street, NEW YORK
122 S. Michigan Ave., CHICAGO
Montreal, Canada, THE SUPERHEATER COMPANY, LTD.

A-1734

Superheaters • Superheater Pyrometers • Exhaust Steam Injectors • Steam Dryers • Feedwater Heaters • American Throttles



Cuba Consolidated Gets New ALCO Fleet



HEAD-ON VIEW OF THE "367"—one of the ten locomotives recently delivered by American Locomotive Company to the Consolidated Railroads of Cuba.

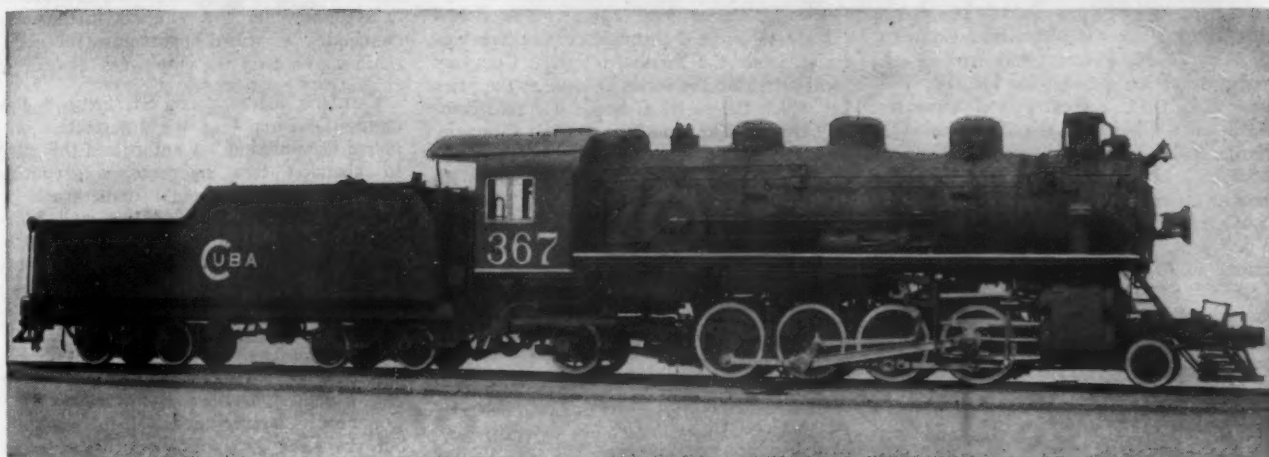
ON May 31 last, ten new ALCO 2-8-2 locomotives, made up into two trains of five each, pulled out of Havana, Cuba, on a 338-mile exhibition run to Camagüey, on the Cuba Consolidated.

At an impressive ceremony, the President of the Republic, and other high officials of the Cuban Government, inaugurating the induction of these locomotives into service, congratulated the railroad upon their acquisition, to the benefit of all Cuba.

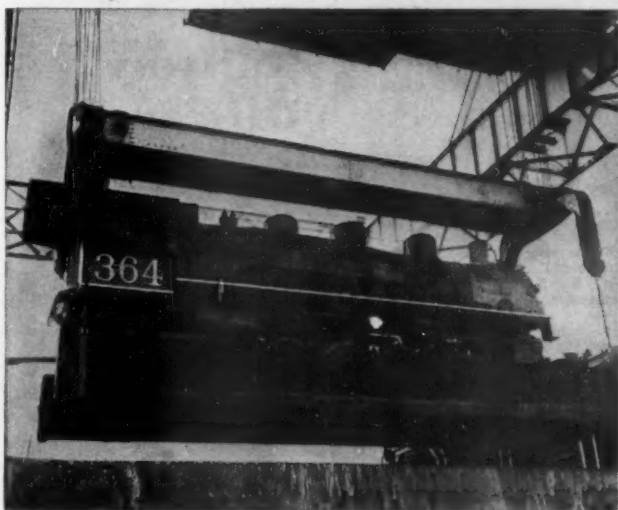
In a letter to the American Locomotive Company, the president of the Consolidated Railroads of Cuba cited Cuba's special needs, and expressed confidence in these new ALCO units "...confidence springing from our experience with others purchased from you in the past."

• • •

Here, and in many countries, more, and still more, locomotives are, and will be, needed. Conditions to be met, types to be supplied, will vary widely. It is good to feel that American Locomotive Company commands — and will uphold — the confidence of railroad men everywhere in its ability to design and build locomotives that answer every requirement completely.



ONE OF TEN ALCO LOCOMOTIVES built for the Consolidated Railroads of Cuba.



DEBARKATION — first of the ten ALCO locomotives is hoisted from ship's hold in Cuba.



AT CAMAGÜEY — two trains of five new ALCO locomotives each arrive at Camagüey headquarters.



WELCOME TO CUBA — the new ALCO locomotives are inducted into the service of railroad and nation by the President of Cuba.

American Locomotive



THE MARK OF MODERN LOCOMOTION

uary 8, 1945, in connection with this road's reorganization under section 77 of the Bankruptcy Act. Claims totaling \$1,278,170 were disposed of in this action. The debtor company was allowed \$6,196 on a claim for \$58,542; J. S. Pyeatt, chairman of the board, \$7,000 on a claim for \$11,250; William A. Kissel, secretary and treasurer, \$4,000 on a claim for \$12,225; Marion B. Pierce, counsel, \$27,855 on a claim for \$68,052; J. H. Parmelee, expert, \$1,200, the amount claimed; Oliver & Oliver, counsel, \$5,431 on a claim for \$20,909; and William Wyer & Company, expert, \$4,807 on a claim for \$10,342. The last named also filed a claim for \$29,965 as expert for the Alleghany Corporation, on which \$20,631 was allowed. Alleghany Corporation was allowed \$326 on a claim for \$11,378; while its counsel, Donovan, Leisure, Newton & Lumbard and White & Case, were allowed \$28,575 and \$2,041, respectively, on claims for \$43,041 and \$2,541.

Other large amounts approved included \$39,875, the full amount claimed, for the protective committee for first and refunding mortgage bonds; this committee's counsel, Cadwalader, Wickersham & Taft, received \$70,338 on a claim for \$94,188; and the Guaranty Trust Company, depository, \$75,523 on a claim for \$94,608. On a claim by Harry Kirshbaum and Edwin J. Bean, counsel for the M. P. convertible bondholders' group, for \$101,743, the division approved a maximum limit of \$6,743. Cravath, Swaine & Moore, counsel for the New Orleans, Texas & Mexico first mortgage and income bondholders' protective committee, was allowed \$19,296 on a claim for \$41,796. Among counsel for the International-Great Northern first mortgage bondholders' protective committee, Edward F. Colladay was allowed \$5,344 on a claim for \$51,306; Edward Paul Griffin, \$4,018 on a claim for \$50,018; and Kenneth McEwen, \$12,189 on a claim for \$100,194. Leon D. Sterling, manager for the same committee, was allowed \$10,000 on a claim for \$47,500. George B. Harris, counsel for the debtor company's trustee, was allowed \$30,696 on a claim for \$38,466.

NEW YORK CENTRAL.—Equipment Trust Certificate.—Division 4 of the Interstate Commerce Commission has authorized this company to assume liability for \$8,800,000 of second equipment trust of 1945 1½ per cent certificates, sold at 99.019 to Salomon Brothers & Hutzler and others, in connection with the purchase of freight cars and locomotives to cost \$11,303,665. (Previous item in *Railway Age* of August 4, page 234.)

SOUTHERN PACIFIC.—Acquisition.—The Southern Pacific Company, which owns all the outstanding stock, and operates the lines, of the South San Francisco Belt, has applied to the Interstate Commerce Commission for authority to acquire the properties of the subsidiary. No money or other consideration is to be paid, but some economies are expected to result from simplification of the system capital structure.

SOUTHERN PACIFIC.—Refinancing.—The Southern Pacific Railroad has asked the Interstate Commerce Commission for authority to issue \$150,000,000 of first mortgage bonds, to consist of the following:

\$25,000,000 of series A, due in 1961; \$50,000,000 of series B, due in 1986; \$50,000,000 of series C, due in 1996; and \$25,000,000 of series D, due in 1996. The series A, B and C are to be sold through competitive bidding, while the Southern Pacific Company will purchase the series D issue at the price at which the series C bonds are sold competitively. The Southern Pacific Company joined in the application, asking for authority to guarantee the new bonds. As noted in *Railway Age* of August 11, page 271, the proceeds and other funds will be applied to the retirement of \$143,473,500 of first mortgage 4 per cent gold bonds due in 1955, called at 105, which are publicly held, and \$15,985,500 of the same issue held by the Southern Pacific Company.

WESTERN PACIFIC.—Reorganization Accounting.—Division 1 of the Interstate Commerce Commission has instituted an investigation and inquiry into the matter of the proper accounting to be performed in respect of opening journal entries in connection with this road's reorganization under section 77 of the Bankruptcy Act.

Average Prices Stocks and Bonds

	Aug. 21	Last week	Last year
Average price of 20 representative railway stocks . . .	50.77	53.11	41.42
Average price of 20 representative railway bonds . . .	95.41	96.85	89.10

Dividends Declared

Erie & Pittsburgh.—87½¢, quarterly, payable September 10 to holders of record August 31.
North Pennsylvania.—\$1.00, payable September 10 to holders of record September 1.
Philadelphia, Germantown & Norristown.—\$1.50, quarterly, payable September 4 to holders of record August 20.
Virginian.—common, 62½¢, quarterly, payable September 25 to holders of record September 11; 6% preferred, 37½¢, quarterly, payable November 1, February 1, 1946, May 1, 1946, and August 1, 1946, to holders of record October 15, January 15, April 15, and July 15 respectively.

Abandonments

CHESAPEAKE & OHIO.—Division 4 of the Interstate Commerce Commission has extended its reservation of jurisdiction for a further period of 2 years for the protection of employees adversely affected by the ferry abandonment by this company authorized in the Finance Docket 14093 proceeding.

CHICAGO, ATTICA & SOUTHERN.—On further hearing, Examiner Ralph R. Molster has recommended in a proposed report that Division 4 of the Interstate Commerce Commission should attach to the certificate of September 10, 1943, by which it authorized this road's owner, Dulien Steel Products, to abandon a portion of its line from Veedersburg, Ind., to West Melcher, 23.9 miles, a provision making such approval subject to the condition that Dulien shall compensate for resulting loss of wages all persons affected by the suspension of operation of that line, "under color of embargo," in advance of the commission's authorization. This recommendation resulted from petitions filed individually by employees who claimed to have been adversely affected, and was accompanied by a finding that the facts and circumstances would not have warranted such a condition if operation of the

line had not been discontinued in advance of the effective date of the authorization. Entry of the order recommended should be delayed, however, the examiner further recommended, to afford opportunity for negotiations to satisfy the employees' claims.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Division 4 of the Interstate Commerce Commission has authorized this road to abandon two segments, aggregating 8.22 miles, of westbound main track on the line between Milan, Minn., and Montevideo, in connection with a project to equip the eastbound track, which has more favorable grades, with automatic signals and centralized traffic control for single-track operation.

GRAND TRUNK WESTERN.—At this company's request, Division 4 of the Interstate Commerce Commission has dismissed without prejudice its application for authority to abandon a portion of a branch from Cass City, Mich., to Caseville, 24.9 miles.

Railway Officers

EXECUTIVE

Carl R. Smith has been appointed assistant to the president of the Bangor & Aroostook at Bangor, Me.

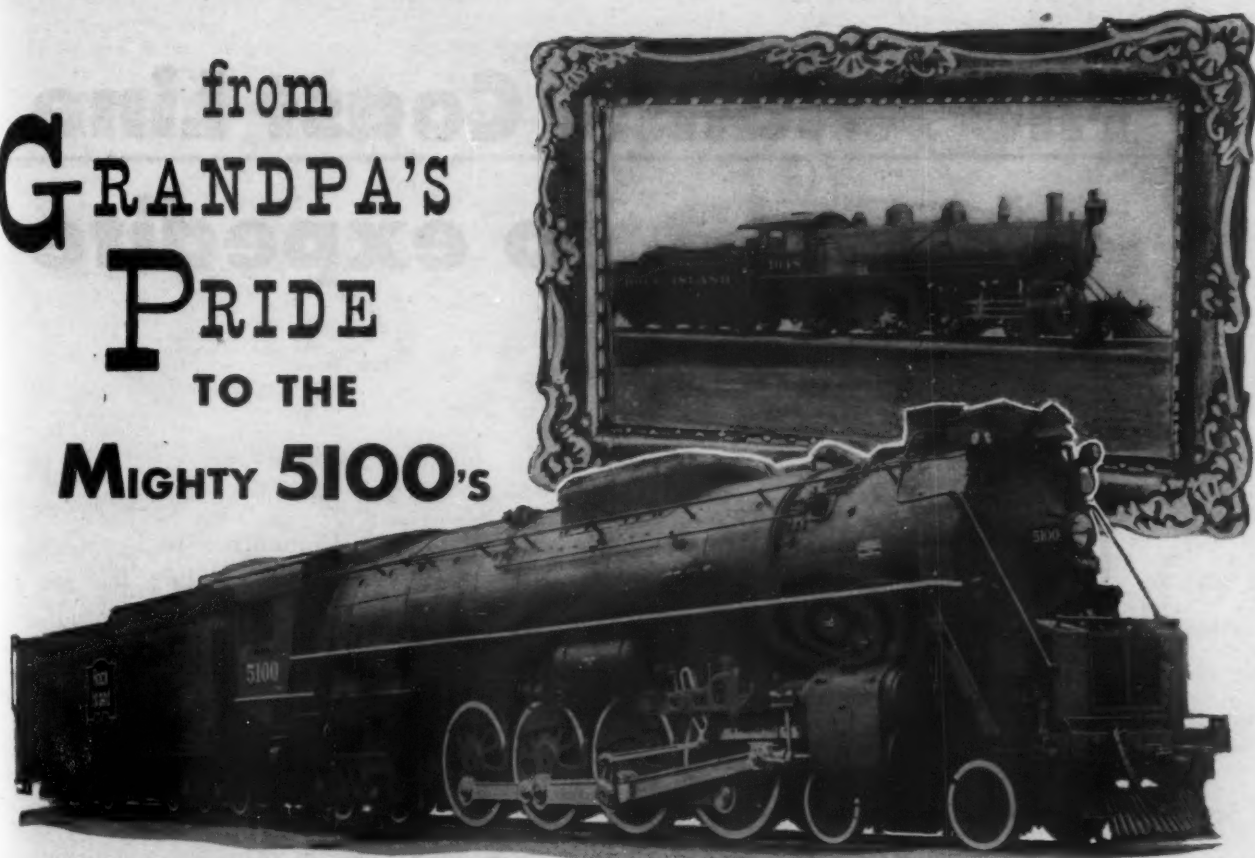
Joseph L. Sheppard, general traffic manager of the Illinois Central at Chicago, has been promoted to assistant vice-president, with the same headquarters.

Harry C. Murphy, assistant vice-president, Chicago, Burlington & Quincy, has been elected vice-president, operations, with headquarters as before at Chicago.

J. J. Mulholland has been appointed executive general agent of the Missouri Pacific, with headquarters at Harlingen, Tex., succeeding **Charles F. Strong**, whose death on July 23 was reported in the *Railway Age* of August 4.

Marshall D. Cloyd, whose promotion to executive vice-president of the Texas & Pacific, with headquarters at Dallas, Tex., was reported in the *Railway Age* of August 4, was born at Nashville, Tenn., on July 2, 1886. After graduating in civil engineering from the University of Texas in 1908, entered railway service as a clerk in the accounting department of the Atchison, Topeka & Santa Fe, but was later transferred to the engineering department. He returned to the general auditor's office at Amarillo, Tex., in 1909, and was promoted to traveling accountant in 1910. In February, 1912, he went with the Missouri-Kansas-Texas as statistician in the office of the vice-president. The following September, he went with the Texas & Pacific as statistician, and in February, 1913, was appointed statistician in the office of the president of the International

from
GRANDPA'S
PRIDE
 TO THE
MIGHTY 5100's



HAS DEPENDED UPON HSGI PARTS

Grandpa loved old 1048 when he drove her.

He would like the Rock Island's new 5100's too, for Grandpa was always progressive and the performance of these modern locomotives would amaze and delight him. Yet the old man would be pleased to find one Rock Island practice unchanged down through the years; that is the use of HUNT-SPILLER GUN IRON for valves, cylinders, and

other vital locomotive parts.

We maintain, along with Grandpa, that one could ask for no more convincing proof of the superior quality of HSGI than the fact that the Rock Island and 75 other great railroads have been our steady customers since or before 1910. Many of them use the complete service of parts listed below because each is a money saver and efficiency increaser.



HUNT-SPILLER MFG. CORPORATION

N. C. RAYMOND, President

E. J. FULLER, Vice-Pres. & Gen. Mgr.

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Cylinder Bushings
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 Valve Packing Rings
 Valve Bull Rings

Crosshead Shoes
 Hub Liners
 Shoes and Wedges
 Floating Rod Bushings
 Light Weight Valves
 Cylinder Liners and Pistons
 for Diesel Service

Dunbar Sectional Type Packing
 Duplex Sectional Type Packing
 for Cylinders and Valves
 (Duplex Springs for Above
 Sectional Packing)
 Cylinder Snap Rings
 Valve Rings, All Shapes

The Atlantic Coast Line to expedite



IN a move to expedite both freight and passenger traffic on its lines between Rocky Mount, N.C. and Wilmington, N.C., and between Wilmington, N.C. and Florence, S.C., the Atlantic Coast Line Railroad has begun the installation of "Union" Inductive Train Communication in this area.

Equipment of the frequency-modulation type for four wayside stations and 36 vehicles has been ordered, which will equip all regularly scheduled freight and passenger trains on specified lines of road.

"Union" I.T.C. will also be installed in the freight yards at South Rocky Mount and equipment for two yardmaster offices and nine switching locomotives has been ordered for that purpose.

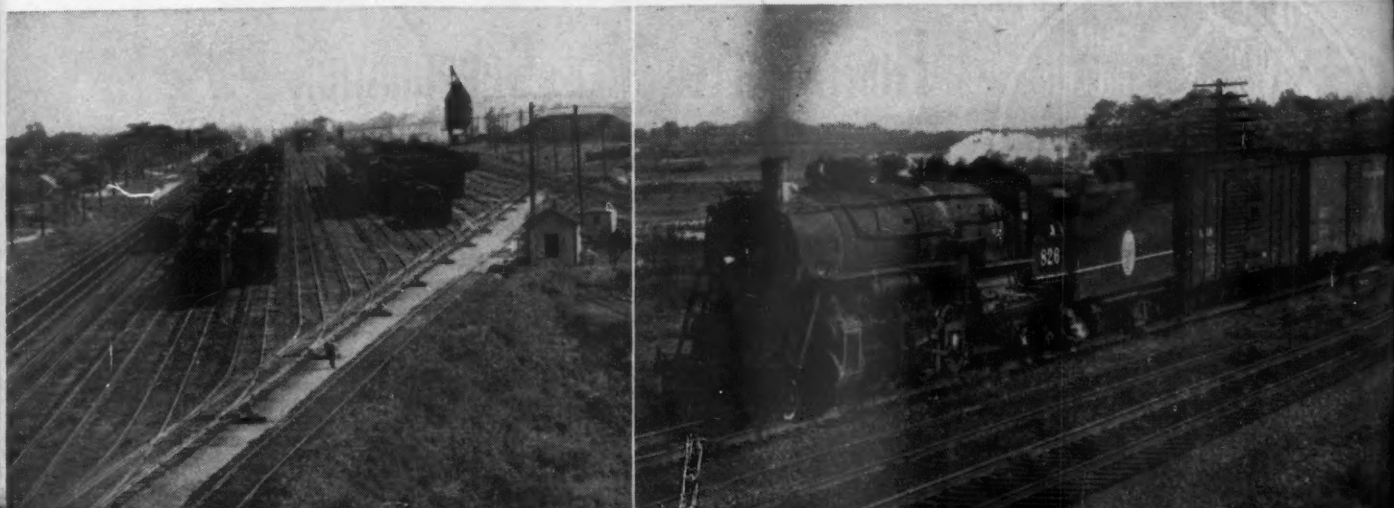
The line to be equipped includes that portion of the double-track line from Rocky Mount to Contentnea, N.C.; the single-

track line from Contentnea to Pee Dee, S.C., by way of Wilmington, and that portion of the double-track line from Pee Dee to Florence.

In addition to the immediate advantages derived from this system of train communication, the Atlantic Coast Line expects to gain experience in methods of utilizing these advantages in main-line operation.

"Union" Inductive Train Communication was selected for this service because it is to a unique degree a railroad man's system. Communication is not broadcast, but is directed along the tracks and adjacent line wires; and the system is as easy to use as the telephone.

Eighteen "Union" I.T.C. installations are now in service on 8 railroads. One yard and two road installations are under construction.



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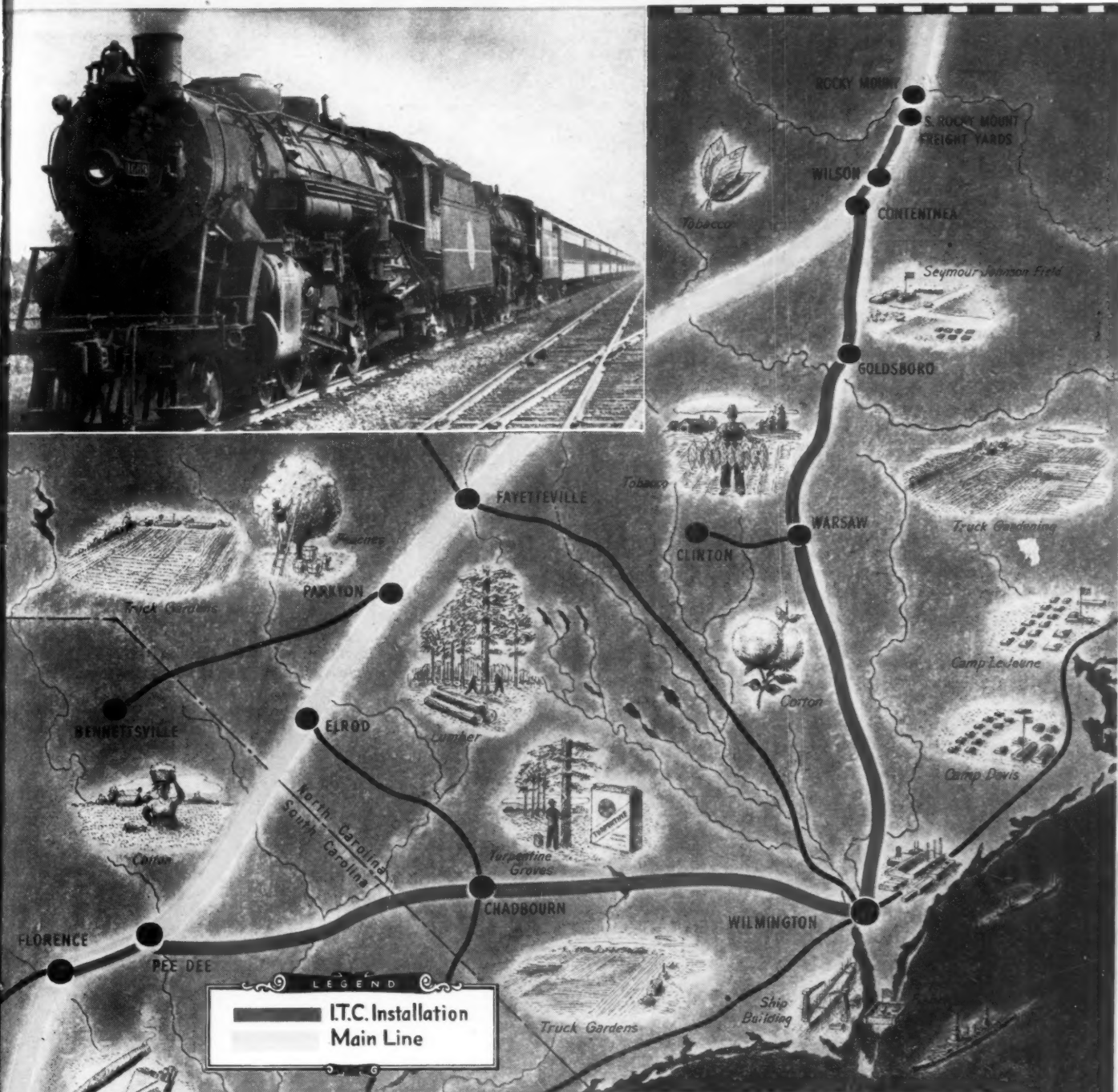
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Great Northern. In 1916, he was appointed secretary and auditor of the Trans-Mississippi Terminal at New Orleans, La., and two years later he returned to the Texas & Pacific as treasurer. He was appointed secretary and treasurer of the Texas & Pacific-Missouri Pacific terminal at New Orleans and valuation auditor of the Texas & Pacific in 1920. In July, 1924 Mr. Cloyd was promoted to assistant to the president and assistant secretary of the Texas & Pacific and on December 16, 1938, he was elected a vice-president, holding that position until his new appointment.

Frank M. Conder, whose promotion to assistant to the vice-president of the Texas & Pacific, with headquarters at Dallas, Tex., was reported in the *Railway Age* of August 4, was born at Commerce, Tex., on August 3, 1901. He entered railway service with the T. & P., on August 14, 1916, as a messenger at Ft. Worth, Tex., subsequently holding several minor positions at that point until November 25, 1926, when he was advanced to chief clerk to the division superintendent, with the same headquarters. On June 6, 1928, Mr. Conder was promoted to traveling time inspector at Dallas, and in the same year he became chief clerk to the division superintendent at Big Spring, Tex. On September 1, 1937, he was advanced to trainmaster, with headquarters at Ft. Worth, and to assistant division superintendent in 1940. On April 1, 1941, Mr. Conder was promoted to supervisor of wages, with headquarters at Dallas, the position he held at the time of his new appointment.

George Gillings, office assistant to the vice-president of the Canadian National at Montreal, Que., has been promoted to assistant to the vice-president and treasurer. Mr. Gillings, who was born at Toronto, Ont., entered railroading with the Canadian National in 1919 as a junior clerk in the office of the vice-president of operation, maintenance and construction. In 1923 he transferred to the office of the vice-president, finance and accounting, at Montreal, and the following year he became secretary



George Gillings

to the vice-president. He was appointed office assistant to the vice-president in 1934, remaining in that post until his recent advancement to assistant to the vice-president and treasurer.

FINANCIAL, LEGAL AND ACCOUNTING

Leroy W. Wing, paymaster of the Pere Marquette at Detroit, Mich., has been promoted to assistant secretary and assistant treasurer, with the same headquarters, succeeding **C. H. Reiser**, who has retired after 48 years of service.

Robert Mitten, assistant general attorney of the Illinois Central at Chicago, has been promoted to assistant, to the vice-president and general counsel, with the same headquarters, a change of title. **Anne G. Carter**, attorney, has been advanced to assistant general attorney, succeeding Mr. Mitten, with headquarters as before at Chicago.

George A. Huth, whose retirement as tax commissioner of the Wabash, with headquarters at St. Louis, Mo., was reported in the *Railway Age* of August 11, was born at St. Louis on October 17, 1874, and entered railway service with the Wabash on April 1, 1906, as tax clerk in the office of the general counsel. In the same year he was promoted to tax agent, with headquarters at St. Louis, being advanced in 1931 to the position he held at the time of his retirement.

OPERATING

William Henry Young, whose appointment as superintendent of the Central of Georgia at Savannah, Ga., was announced



William Henry Young

in the *Railway Age* of July 14, was born at Norway, S. C., on January 13, 1901, and entered railroading in February, 1920, as waybill clerk of the Central of Georgia's Savannah freight agency. The following August he became yard clerk of the joint agency, and on December 3, 1923, he was named chief clerk to the terminal trainmaster at Savannah. He had served for two brief periods as acting terminal trainmaster previous to the time of his appointment as terminal trainmaster of the Savannah division on April 1, 1943. In December, 1944, he became acting superintendent of the Savannah division, the post he held at the time of his promotion to superintendent.

Carl D. Love, whose promotion to general superintendent, system, of the Louis-

ville & Nashville, with headquarters at Louisville, Ky., was reported in the *Railway Age* of August 11, was born at Knoxville, Tenn. He entered railway service with the L. & N. prior to 1918, holding several minor positions at various points



Carl D. Love

of the road until February 1, 1925, when he was advanced to assistant master mechanic at DeCoursey, Ky. In June, 1931, he was promoted to master mechanic, with headquarters at Radnor, Tenn., and on June 6, 1941, he was further advanced to superintendent of the Louisville division. From December, 1942, up to the present time, Mr. Love has been on leave of absence to serve with the armed forces and has been commanding officer of the 728th Railway Operating Battalion, with the rank of lieutenant-colonel.

Dewey F. Alexander, whose promotion to superintendent of transportation of the Missouri & Arkansas, with headquarters at Harrison, Ark., was reported in the *Railway Age* of August 11, was born at Pollack, La., on August 23, 1905. He entered railway service in May, 1926, in the bridge and building department of the



Dewey F. Alexander

M. & A., at Harrison, and one year later he became a brakeman. In January, 1937, Mr. Alexander was promoted to conductor, with headquarters at Harrison, and in February of this year he was advanced to assistant superintendent of transportation,

the position he held at the time of his new appointment.

TRAFFIC

William E. Black, district freight claim agent of the Erie at Buffalo, N. Y., has retired after 34 years of service.

R. P. Laird, general freight agent (divisions) of the Chesapeake & Ohio at Richmond, Va., has been advanced to general freight agent, with the same headquarters succeeding **T. Jefferson, Jr.**, whose promotion to assistant freight traffic manager was reported in the *Railway Age* of August 4.

Robert A. Trovillion, freight traffic manager of the Illinois Central at Chicago, has been advanced to general traffic manager, with the same headquarters, succeeding **Joseph L. Sheppard**, whose promotion to assistant vice-president is reported elsewhere in these columns. **R. B. Smith**, assistant traffic manager, has been promoted to freight traffic manager, with headquarters as before at Chicago, replacing Mr. Trovillion. **Carl A. Larsen**, assistant to the freight traffic manager, has been advanced to general freight agent, with headquarters as before at Chicago, and **W. R. Jones**, office manager at New Orleans, La., has been promoted to assistant general freight agent, with headquarters at Jackson, Miss.

Darrow Kirkpatrick, general freight agent in charge of divisions of the Southern at Atlanta, Ga., has been named general freight agent there succeeding to the duties of **Charles L. Bateman**, whose death on July 17 was reported in the *Railway Age* of July 28. **Clyde E. Flowers**, assistant general freight agent at Atlanta, has been promoted to general freight agent in charge of divisions there, succeeding Mr. Kirkpatrick. **Richard W. Ellerman**, assistant general freight agent at Cincinnati, Ohio, has been transferred to Atlanta, and **William C. Richardson**, division freight agent at St. Louis, Mo., has been promoted to assistant general freight agent at Cincinnati replacing Mr. Ellerman. **Robert L. Peace**, district freight and passenger agent at New York, has been appointed division freight agent at St. Louis succeeding Mr. Richardson. All these changes become effective on September 1.

ENGINEERING & SIGNALING

E. F. Wright, assistant engineer of the Baltimore & Ohio at Pittsburgh, Pa., has been promoted to regional engineer with the same headquarters.

St. John Monroe, division engineer of the Canadian National at Victoria, B. C., has been promoted to district engineer of the British Columbia district, with headquarters at Vancouver, B. C., succeeding **S. Morrison**, who has retired.

H. R. Pratt, chief engineer of the Western Maryland at Baltimore, Md., has been appointed consulting engineer with such duties as may be assigned, and **E. Carl Shreve**, engineer maintenance of way at Baltimore, has been advanced to chief en-

gineer in charge of construction and maintenance of way. The position of engineer maintenance of way has been abolished.

C. J. Jaeschke, division engineer of the Missouri Pacific at Kansas City, Mo., has been transferred to the Omaha-Northern Kansas divisions, with headquarters at Falls City, Neb., succeeding **W. Rambo**, who has been transferred to the Central Kansas-Colorado divisions, with headquarters at Osawatomie, Kan. He replaces **C. E. Cherry**, who has been transferred to the Joplin-White River divisions, with headquarters at Nevada, Mo., relieving **G. L. Brown**, who in turn succeeds Mr. Jaeschke as division engineer of the Eastern and Kansas City Terminal divisions at Kansas City.

PURCHASES AND STORES

L. L. King, purchasing agent of the Illinois Central at Chicago, has been promoted to general purchasing agent, with the same headquarters, a change of title.

Hugo V. Gamper, whose promotion to assistant general purchasing agent of the Illinois Central, with headquarters at Chicago, was reported in the *Railway Age* of



Hugo V. Gamper

August 18, was born at Chicago on October 10, 1901. He entered railway service with the I. C., on September 14, 1917, as a clerk, subsequently serving in several minor positions until 1935 when he began specializing in matters pertaining to state and federal regulations, sales taxes, priorities, etc. His new position became effective on August 15.

William Walter Griswold, whose retirement as purchasing agent of the Wheeling & Lake Erie and the Lorain & West Virginia at Cleveland, Ohio, after 40 years service, was announced in the *Railway Age* of August 18, was born at Linneus, Mo., on June 26, 1878, and attended the University of New Mexico. He entered railroading in 1899 as a stenographer and ticket clerk of the Southern Pacific at Fresno, Cal., having previously served as a clerk-stenographer with an insurance agency there. After holding various positions with the Southern Pacific, including those of clerk in the division superintendent's office, assistant secretary to the freight traffic manager, secretary to the

assistant general superintendent, and tonnage clerk and assistant time keeper, he was appointed secretary to the assistant director, maintenance and operation, of the Harriman Lines at Chicago in 1905, shortly thereafter joining the Oregon Railway & Navigation Co. at Portland, Ore., as secretary to the vice-president and general manager. From 1905 to 1913 he served in various capacities with the Wheeling & Lake Erie and the Wabash Pittsburgh Terminal (now the Pittsburgh & West Virginia), and in the latter year he was appointed purchasing agent in charge of purchasing and stores, the post he held at the time of his retirement.

SPECIAL

D. S. Hair has been appointed transportation engineer—research—of the Missouri Pacific, with headquarters at St. Louis, Mo., succeeding **H. D. Knecht**, who has been granted a leave of absence to enter government service.

Dr. W. W. Washburn has been appointed chief surgeon of the hospital department of the Southern Pacific, with headquarters at San Francisco, Cal., succeeding **Dr. C. A. Walker**, whose retirement after 40 years of service was reported in the *Railway Age* of July 7.

C. R. Young, manager of personnel of the Illinois Central, has been promoted to director of personnel, reporting directly to the president, with headquarters as before at Chicago. **G. J. Willingham**, assistant to the vice-president and general manager at Chicago, has been advanced to manager of personnel, with the same headquarters, succeeding Mr. Young.

OBITUARY

Dr. James M. Dinnen, chief surgeon of the New York, Chicago & St. Louis, died at Ft. Wayne, Ind., on August 14.

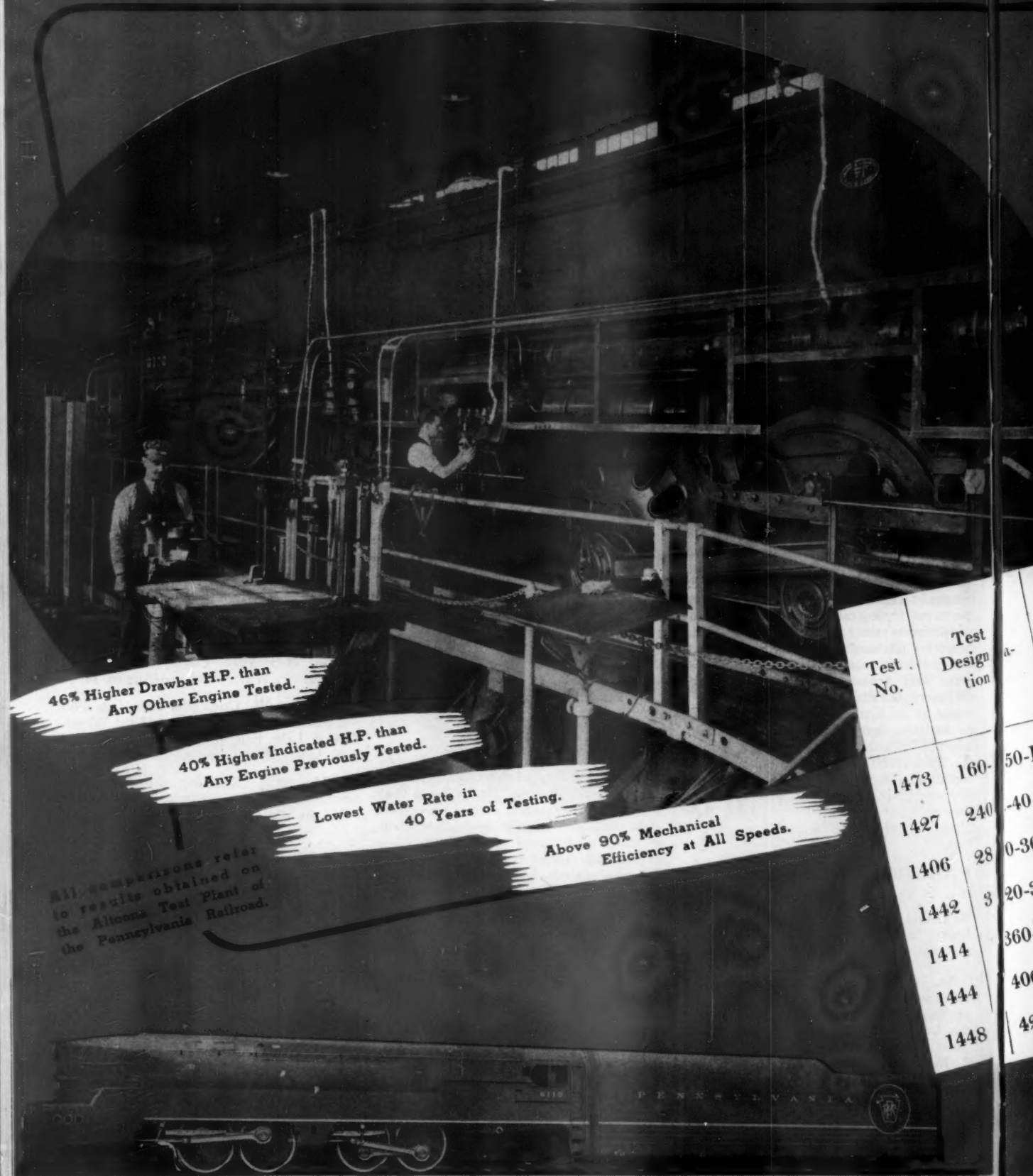
Charles W. Coe, who retired in 1923 as assistant general manager of the Wheeling & Lake Erie at Cleveland, Ohio, died on August 17, at the age of 78.

Edward J. Searles, manager of the Schaefer Equipment Company, Pittsburgh, Pa., died August 13. He was 69 years of age.

William H. Sauve, assistant superintendent of the Canadian Pacific's Farnham division at Farnham, Que., died on July 17 at Portland, Me., at the age of 57. He had been employed by the Canadian Pacific since he was 11 years old.

Robert Kendall Rochester, who retired in 1944 as assistant to the chief engineer of the Pennsylvania at Philadelphia, Pa., died at Elizabeth, N. J., on August 18. Mr. Rochester was born at Simcoe, Ont., on December 7, 1877, and was graduated from Rose Polytechnic Institute. He entered railroading in 1901, and prior to his retirement had served as general superintendent of the Long Island (part of the Pennsylvania), general superintendent of the Pennsylvania's Eastern region, and assistant to the vice-president, operations, successively.

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This 4-cylinder Duplex locomotive, designed and built by Baldwin, has set new standards of motive power performance—on the test plant as well as on the road.

Designed to haul a trailing load of 880 tons at a speed of 100 m.p.h., it actually handled more than 1000 tons at that speed.

At very high speed the locomotive produced nearly maximum power at 15% cut-off. This is due primarily to high boiler pressure, large steam passages which reduce pressure drop from boiler to steam chest, poppet valves and relatively large admission openings due to the use of four cylinders.

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	Speed MPH	I.H.P.	T.P. from I.H.P.	Steam Rate	Total Evap.	Total Coal	Firing Rate	PRESSURES			Steam Temperature	Degree Super-Heat
								Boiler	Steam Pipe	Exhaust Passage		
60-50-F	38	4838	47743	16.3	80620	13703	150.1	296	292	18.1	741	322
40	57	6105	40094	15.6	96574	19340	211.8	297	292	19.3	738	319
30	67	6021	34004	15.4	94236	16970	185.9	293	281	15.3	738	320
20-35	76	6484	31993	15.3	101583	22629	247.8	294	286	29.4	799	381
360-25	86	6552	28737	15.4	102816	18370	201.2	295	287	24.2	757	339
400-20	95	6544	25832	14.7	97949	19536	214.0	295	288	25.0	781	363
420-20	100	6666	25048	15.6	105475	24090	262.9	296	288	25.9	728	310

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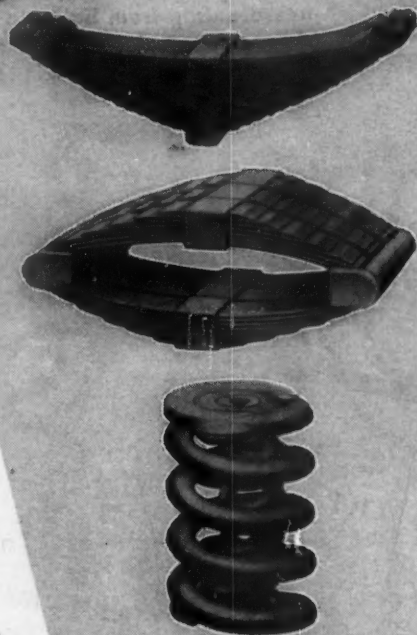
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DON'T BLOW IT

Oh, workman or scholar,
Hang on to your dollar
And do not spend it soon,
For every cent
Unwisely spent
Inflates the price balloon.



IT MAKES SCENTS

To market (black market) to spend lots of jack
Careless of how many ceilings you crack,
To market (black market) where prices are dear,
—Gosh, there's a terrible smell around here.

If

If you can keep your head and calmly ponder
How silly spending drives the prices high;
If you can save the cash you'd like to squander
And only buy the things you need to buy;
If you can do your part to fight inflation
By simply being thrifty with your pelf,
You'll do a vital service to the nation
And—furthermore—you'll benefit yourself.

Bonds you buy with payroll earnings,
Help fulfill your future yearnings.

NO GAMBLE

When the war is over, will the prices
rise or fall?
We do not know the answer, and
nobody does, at all.
But this much we can prophesy—
whichever way they go:
You will find it more convenient if
you've saved a little dough.

★ ★ ★



Money in your pocket,
Take it out and sock it
Into War Bonds, which
Help to make you rich.

DOUBLE AND NO QUILTS

When you boost your paycheck quota and allot it
To another bond—it's pretty soft for you!
For, although you've spent your money—you
have got it,
And the Interest is interesting too.

POINTED RHYMES FOR TRYING TIMES

by
Berton Braley

*Here is wisdom by the peck
Versified to save your neck!*



WHO? ME?

There was a little dope with a fat
pay envelope
And she spent every cent that
was in it.
And she wondered, by-and-by,
why the prices rose so high,
But she didn't blame herself for
a minute.

★ ★ ★

INFLATIONARY MARY

Inflationary Mary spills
This silly kind of chatter:
"My little teeny-wee bills
And spendings do not matter.

"And if I cheat a little bit
On rationing and ceilings
The Nation's welfare isn't hit
By my small lawless dealings!"

Inflationary Mary's wrong.
For she'd be much to blame
If people in a mighty throng
Should say and do the same.

Small spendings, in the aggregate,
Reach sums extraordinary,
So let's not try to imitate
Inflationary Mary.

★ ★ ★

ADVERTISERS, PUBLISHERS—NOTE:

You are welcome to use all or
any part of the material on this page to aid
the fight against inflation.



SNAKE IN THE GAS

There was a crooked man and he
lived in crooked style,
He dealt at crooked markets with a
smugly crooked smile.
He viewed himself as clever with
his crooked ration book,
But everybody knew him for a
crooked little crook.

★ ★ ★

THE GANG'S ALL HERE

You may ask, "Why should my spending
Cause inflationary trending
Though I squander every penny I have got?"
—If you're joined by sixty millions
Of civilians blowing billions,
You'll discover that it matters quite a lot!



YOU CAN LAY TO THAT

As the best egg for a nest-egg
Buy a War Bond—buy a batch.
But you gotta keep 'em settin'
Or they ain'ta gonta hatch!

Save your pay
Here's a way—
Bonds and savings and insurance
Give your future more endurance.
Mrs., Mister,
Brother, Sister,
Don't compete in buying things
That is whence inflation springs.



ONE PERSON CAN START IT!

You give inflation a boost

—when you buy anything you can do without
—when you buy above ceiling or without
giving up stamps (Black Market!)
—when you ask more money for your services
or the goods you sell.

SAVE YOUR MONEY. Buy and hold all the
War Bonds you can afford—to pay for
the war and protect your own future.
Keep up your insurance.

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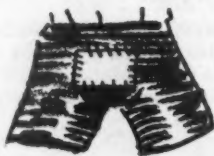
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10, Box, 40-Ft., 40-Ton
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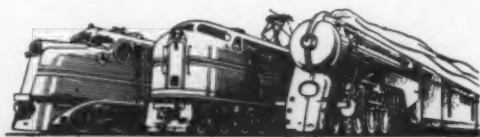


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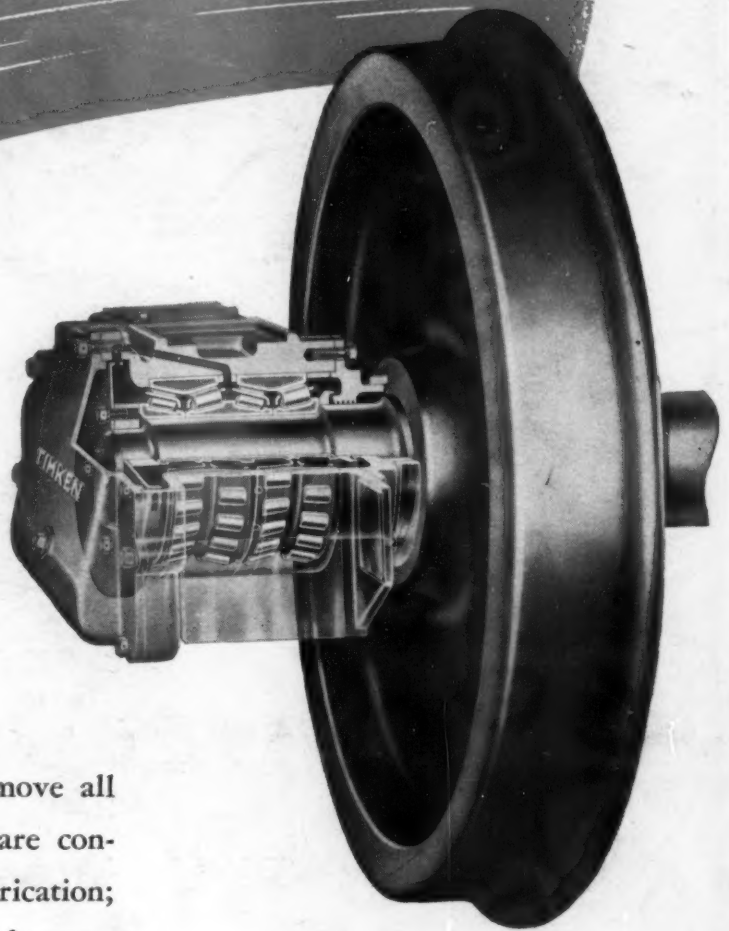
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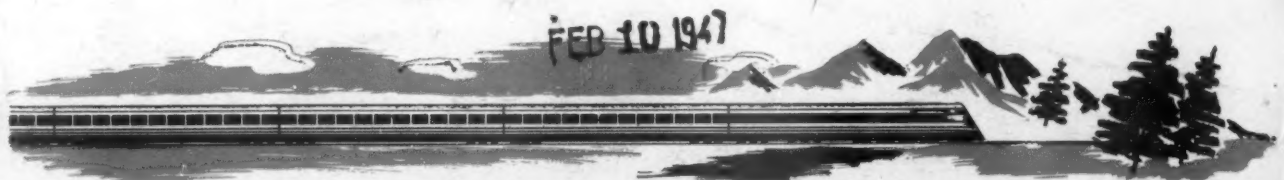


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